Heating Piping & Air Conditioning

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. . . for CONSULTING ENGINEERS · MECHANICAL (Heating, Piping, and Air Conditioning) CONTRACTORS ENGINEERS WITH PLANTS AND BIG BUILDINGS

HEATING, PIPING & AIR CONDITIONING'S

Trade Literature Supplement

HOW TO USE THIS INFORMATION

Catalogs, bulletins, and other helpful data available to you from advertisers in Heating, Piping & Air Conditioning are briefly described in this supplement. Each description is numbered. Just circle the numbers for those you want on the handy postage-paid card on pages 2-59 and 2-60. Your requests will be passed along to the manufacturers whose literature you ask for.

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Air Distribution, Air Diffusion, Ductwork, Grilles, Etc.

1 Access Doors, Louvers, Dampers

Bulletin 120-160-ACC covers insulated duct access doors; adjustable and stationary louvers, air control fire dampers; back pressure dampers; manual, automatic and motorized wall and horizontal shutters.—Ammerman Co., Inc.

2 Acoustic High Velocity Units

Thirty-six page catalog 1160 gives detailed description of new line of acoustic terminal control units for all-air high velocity systems. Full information and specifications on three ceiling models and two window/perimeter models given.—Carnes Corp.

3 Air Diffusers

Bulletin K27-A illustrates and describes linear and rectangular series air diffusers, gives dimensional drawings for several types in each series, and complete selection and performance data, with list of agents. Offered in three series: square, panel, long slotted units combine best air distribution and modern styling.—Connor Engineering Corp.

4 Air Diffusion Equipment

Fifty-eight page catalog 1-59 contains complete application and specification data on line of return and supply registers, extruded aluminum "Airline" grilles, removable core grilles, volume control dampers and door ventilators. Each type of unit is well illustrated and keyed in color for quick reference.—Waterloo Register Co., Inc.

5 Air Distribution Equipment

Consolidated catalog covers round, square, rectangular and linear diffusers; grilles and registers; stamped metal grilles; and high pressure all-air units. Complete dimensional and engineering data included.—Tuttle & Bailey Div. of Allied Thermal Corp.

6 Air and Light Diffusers

Catalog F-9768 describes air and light diffusers contained in one unit, manufactured by Barber-Colman Co. and Day-Brite Lighting, Inc. and gives illustrations with line drawings showing construction and operation. Photographs picture various models and include accurate performance data for proper selection.—Barber-Colman Co.

7 All-Air High Velocity Units

Twenty-four page catalog HV-70 on all-air high velocity units for air conditioning, available in many types for providing draftless air diffusion. Advantages are briefly discussed, typical applications described, and dimensions and performance data given. A typical specification is included, as are pictures of high velocity installations.—Anemostat Corp. of America.

8 Circular Air Diffusers

Twenty-eight page catalog CI-70 on circular air diffusers, with introductory page on principles and definitions, information on selection, and with dimensions and performance data for supply diffusers, supply and extract diffusers, adjustable supply diffusers, inductive diffusers, diffusers for central systems, for unit heaters, and diffusers with lights. Specifications of the diffusers included.—Anemostat Corp. of America.

9 Circular Diffusers

Complete application data, roughing-in dimensions and description of available accessories for fixed pattern and adjustable pattern "Silentair" circular and half-round diffusers given in bulletin C-600. Units are suitable for recessed ceiling mounted and exposed duct mounted applications.—General Air Products Corp.

10 Copper-Bearing Galvanized Sheets

Sixteen page booklet describes "SofTite Cop-R-Loy" galvanized sheets for air conditioning ducts and other applications. Detailed description, how and where used, manufacturing process, and other subjects are covered and photographs included.—Wheeling Steel Corp.

11 Copper and Brass Products

Thirty-two page stock list catalog lists sizes of sheet, roll, strip, rod, wire, tubing, pipe, roofing materials and other related copper and brass products, with applicable gauge and weight data.—C. G. Hussey & Co. (Div. of Copper Range Co.)

12 Diffuser for Round Duct

The "Duct-D-fuser" distributes air in a planned pattern directly from round duct wherever exposed duct is used for industrial air distribution. Installs as simply as a coupling and can operate directly from high pressure systems without pressure reducing equipment.—United Sheet Metal Co., Inc.

13 Diffusers

"Silentair" series S square, rectangular and continuous diffusers together with available accessories are described in bulletin S-401. Extensive application data is included in revised, more easily readable form together with roughing-in dimensions for various styles of frames and diffuser mountings.—General Air Products Corp.

14 Door Grilles

Catalog F-8308-2 gives complete information on "Site-Tite" and "Lite-Tite" grilles. Provides dimensions, sizing charts and application information for all types of "Uni-Flo" door grilles.— Barber-Colman Co.

15 Drill Screws

Four page bulletin describes new "Drill-Screw" that drills its own hole in sheet metal. Manufactured in five sizes. Tips on "Drill-Screws" and drill chucks are given, and net prices are shown. — Duro Dyne Corp.

16 Dual Duct Air Conditioning

Guide details features of high velocity dual duct air conditioning systems and shows typical arrangements for architects and consulting engineers. — Buensod-Stacey Corp.

17 Dual Duct Air Conditioning Air Mixing Units

Sixteen page bulletin DD-6 gives information on dual duct air mixing units for use in high or low pressure dual duct air conditioning systems with supplementary items such as enclosures, distributing headers, high velocity outlets, etc. — Buensod-Stacey, Inc.

18 Enginering Catalog

This book offers descriptions, properties, chemical resistances, detailed specifications and installation data covering polyvinyl chloride pipe, fittings, valves and sheet stock. — The Colonial Plastics Mfg. Co., Van Dorn Iron Works.

19 Engineering Manual on Diffusers

Sixty-four page engineering manual 34 has descriptive and technical data on round, square, rectangular and linear air diffusers. — Universal Diffuser Corp.

20 Extruded Aluminum Grilles

Technical catalog LD-100 contains performance data, selecting and sizing methods of "Agitair Decoraire" extruded aluminum grilles in 12 sizes with three degrees of deflection (0, 15 and 25 deg) and in widths of 1½, 2, 3, 3½, 4, and 6 in. Catalog also illustrates a group of modern design extruded aluminum borders. — Air Devices Inc.

21 Extruded Aluminum Wall Louvers

Bulletin KX-60 presents information on an essential part of ventilation and air conditioning systems for fresh air intake or exhaust. Wall louvers made of durable, attractive aluminum available in stationary, manual, adjustable or with electric or pneumatic motor operators are described with photographs, drawings and specifications. — Penn Ventilator Co., Inc.

22 Fabricated Grilles

Bulletin 43 illustrates, describes Diamond heavy-duty bar type grilles — all steel or all aluminum — designed and built to give best possible combination of strength and high open area. Widely used in modern schools, colleges, hospitals, ocean liners, sports arenas, etc. Built to order (no standard sizes) in any required rectangular size or shape. — Diamond Mfg. Co.

23 Fabricated Plastic Ductwork

Plastic ductwork for handling wet or corrosive fumes is described in new "Ace" bulletin CE-59. Corrosion-resistant, light in weight, the polyvinyl chloride and other plastics used are good for a lifetime with no painting or maintenance required. Tanks, hoods, stacks, large pipe and fittings also available. — American Hard Rubber Co., Div. of Amerace Corp.

24 Fiber Duct

A four page illustrative brochure on "Sonoairduct" fiber duct. The duct is designed particularly for slab floor perimeter heating or combination heating and cooling systems. Information regarding air friction loss, thermo-conductivity and general installation instructions are included.—Sonoco Products Co.

25 Fire Vents

New 8 page technical report, bulletin FY-R59, gives the latest data on how to choose and position fire vents. Fire hazard rating charts simplify selection of appropriate number of vents required for a given area. The "Pyroport", "Smokeport" and "Smokehatch" are described for specific job applications. — Penn Ventilator Co. Inc.

26 Flexible Air Conditioning Ducts

Brochure describes the use of flexible ducts for air distribution systems. Presents specifications on different types and gives complete engineering data, including air friction loss in straight runs and bends. — Flexible Tubing Corp.

27 Grilles

Catalog 36, 100 pages (AIA File No. 30-E) illustrates, describes Diamond architectural grilles, stamped out of steel, aluminum, bronze or any other commercial metal, in any thickness up to ¼ in. Shows unit openings actual size, gives complete working data. Illustrates, describes other Diamond products for heating, ventilating, air conditioning. — Diamond Mfg. Co.

28 Grilles and Registers

"Customline" extruded grilles and registers designed for the most exacting architectural treatments are described in bulletin E-500. A "selection guide" is included in this up-to-date bulletin to indicate readily the wide range of application and method of selection to meet specific problems. Descriptive information and application data are included. — General Air Products Corp.

29 High Velocity Air Conditioning Data

New data file is designed to help the air conditioning industry utilize the advantages of high

velocity air transmission and distribution. Discusses what high velocity is, what it can do and where it should be used, duct design and construction, and temperature control. — Barber-Colman Co.

30 High Velocity Induction Unit

Twelve page brochure 36R-80 describes high velocity induction unit 36R bypass "Weathermaster", which features a self-contained automatic air bypass control. New kind of control replaces external pneumatic control systems and water valves. — Carrier Air Conditioning Co., A Div. of Carrier Corp.

31 Jet Induction Type Diffusers

New 24 page technical catalog contains complete performance data in tabular form and formula for selecting, sizing and applying "Agitair" custom designed air diffusers with built-in diffusing vanes and high induction jets. A few of the unlimited air pattern arrangements are shown. — Air Devices Inc.

32 Louvers and Dampers

Brochure illustrates and describes fire dampers, automatic and manually operated mixing dampers, motorized and stationary extruded aluminum and formed louvers. Underwriters' Laboratories labeled. — Imperial Damper Co.

33 Mixed Flow Fan

New MAC fan is only mixed flow fan designed for ventilating and air conditioning applications. It combines integral economical space-saving advantages of the axial, with true non-overloading horsepower curve of the centrifugal, featuring constantly rising, non-peaking pressure curve. Complete range of sizes, direct or belt driven. — Air Motion Research Div., Missile Dynamics Corp.

34 Mixing Boxes

Catalog HV-100 illustrates and describes "Agitair" O series one motor constant volume "Hi-Vel" mixing boxes with noise attenuator units. Complete performance data in tabular form, dimension drawings and specifications are included. — Air Devices Inc.

35 Motorless Volve Attenuator

Bulletin K-45 describes new Connor "Kno-Draft" series 45P valve attenuator, which uses no motors or linkage of any kind and is designed for use in dual duct high velocity air distribution systems. Features are listed, function explained, along with performance data and dimensions. — Connor Engineering Corp.

36 Multi-Blade Dampers

Chart tells how to make multi-blade dampers, using "Duro-Blade" kit for parallel dampers and "Opax" blade kit for opposed action dampers. Ordering information, how to make the frame and the blades, mounting the hardware, and assembling the damper are covered. — Duro Dyne Corp.

37 Perforated Ceiling Diffusers

Catalog TPD-60 pictures and describes complete line of TCS and TCR series of square and rectangular perforated ceiling diffusers including engineering, application and selection data. These supply and return units are available for all types of ceiling mountings including recessed, surface, inverted T-bar, etc. — Titus Mfg. Corp.

38 Perimeter Diffusers

Four page circular, form 101, on U. S. perimeter base diffusers, and perimeter base intakes. Also covers diffuser sidewall and base registers, and floor registers and diffusers. Features described and illustrated, dimensional data, list prices given. — United States Register Co.

39 Plastic Modular Diffuser

Catalog 460 contains complete details on new plastic model M modular diffuser, which reportedly solves any air handling or design problems. Illustrates versatility of modular diffuser through combining multiples of three basic 6 in. square modules — one-way, two-way and corner throw. — Carnes Corp.

40 Register and Grille Manual

Engineering manual 39 has complete descriptive and engineering data on registers, grilles and accessories. — Universal Diffuser Corp.

41 Registers and Grilles

Catalogs and bulletins cover "Fabrikated" solid bar construction registers and grilles made of steel and aluminum for heating, ventilating and air conditioning. Special sizes made in this solid bar construction with rounded edge stock — no sharp edges. — Independent Register Co.

42 Registers, Grilles, Diffusers

Complete line of high quality products for any commercial or residential heating and/or cooling operation. Specializing in non-standard sizes and designs. Heavy gauge steel or aluminum in many eye appealing designs; air flow in any directional pattern. — A & A Register Co.

43 Registers, Grilles, Diffusers

Catalog 61 describes registers, grilles and diffusers for heating, cooling and ventilating applications. — A-J Mfg. Co.

44 Registers, Grilles and Diffusers

Sixty-eight page catalog A for 1960 on air conditioning registers, air conditioning grilles, air conditioning diffusers, pressure dampers and accessories. The index includes products for residential-gravity, and commercial and industrial. — United States Register Co.

45 Regulators, Registers, Grilles and Diffusers

A complete line of manually controlled surface, concealed, high pressure floor-line, remote con-

trol and air-split regulators; dampers; adjustable air conditioning registers, grilles and baseboard diffusers, for every type of heating and air conditioning installation. — Young Regulator Co.

46 Rigid Vinyl Sheet Technology

Service bulletin G-17 describes the uses of "Geon" rigid vinyl raw materials for making ductwork, fume hoods and other products. Bulletin is illustrated and contains many technical tables and charts. — B. F. Goodrich Chemical Co.

47 Round and Square Ceiling Diffusers

Four page bulletin describes round and square ceiling diffusers in step-down and flush-type styles, and round and square ceiling dampers, knob and screwdriver operated. Equipment is illustrated, cross-sections shown, and free areas, dimension, prices given. — United States Register Co.

48 Sightproof Grilles

Sightproof "No-Vision" grilles of steel or aluminum for panels and doors are described. Sight and lightproof grilles for darkroom and similar applications are also covered. — A-J Mfg. Co.

49 Spiral Duct and Fittings

Light, rigid spiral "Lockseam" pipe for high pressure, high velocity air distribution ducts comes in long lengths for economical installation in sizes 3 to 22 in. diameter and are made in galvanized steel, aluminum, stainless and perforated metals. Matched welded fittings specially designed for low friction loss in high velocity systems. — United Sheet Metal Co., Inc.

FOR YOUR CONVENIENCE

Use the handy postage-paid reply card on pages 2-59 and 2-60 to request your copies of the trade literature reviewed here.

50 Square Air Diffusers

Sixteen page catalog SQ-70 on square air diffusers, with discussion of principles and definitions, information on selection, specifications, and dimensions and performance data for supply diffusers, induction diffusers, adjustable supply diffusers, panel type diffusers, and supply and extract diffusers. — Anemostat Corp. of America.

51 Square and Rectangular Ceiling Diffusers

Twenty page illustrated catalog TMD-658 gives comprehensive engineering, performance and selection data on complete line of series TMD square and rectangular ceiling diffusers. Units include those for standard ceiling installations, drop frame installations, tile ceiling and surface mountings. — Titus Mfg. Corp.

52 Supply and Return Grilles and Registers

Thirty-six page catalog GL-159R illustrates and gives comprehensive engineering, performance and selection data on complete line of supply and return grilles and registers. Includes data on gymnasium and door grilles and full line of accessories, including volume controllers and extractors. — Titus Mfg. Corp.

Air Filters & Air Cleaners

53 Air Filter Gages

Bulletin C-1 presents the standard Dwyer line of three types of gages, including architect-engineer specification data. The air filter gages provide a continuous check on the efficiency of all types of filters which is necessary for maximum overall economy.—F. W. Dwyer Mfg. Co.

54 Air Filters

Catalog shows graphs, charts, and other technical data on permanent washable "Dust-magnet" electrostatic air filters with "Poly-mag 80."—Stoddard Industries, Inc.

55 Air Filtration

Forty page brochure, "Micromat System of Air Filtration," discusses air pollution, principles of air filtration and the application of the various types of "Micromat" synthetic fiber media in commercial, industrial, institutional and residential installations, with six media types included.—Microtron Corp.

56 Automatic Air Filters

Bulletins 819 and 822 on vertical and horizontal (respectively) roll-away type, automatically controlled air filters that clean the air at low cost per cubic foot. Listed by Underwriters' Laboratories. They deliver dependable automatic performance with minimum of maintenance attention; delivered to job site fully assembled.—Continental Air Filters, Inc.

57 Chemical, Biological, Radiological Filter

Eight page compilation of specifications, descriptions, operating and maintenance instructions for the MSA C-B-R chemical, biological, radiologi-

cal filter for removal of chemical, biological and radiological contaminants that can be encountered in modern warfare. Especially designed to filter air supplied to bomb shelters.—Mine Safety Appliances Co.

58 Cloth Tube Filter

Bulletin 222 describes new AAF tube filter which utilizes media supplement for high air cleaning efficiencies with minimum of maintenance when handling atmospheric dust. Illustrates circular, rectangular and custom designs; explains field assembly, operation and selection of various tube cloths and media supplement. Includes technical characteristics.—American Air Filter Co., Inc.

59 Commercial Range Hood Ventilation

"Filtaire" commercial range hood ventilator collects grease, smoke, heat, odors from commercial ranges, fryers, etc., by range-level blower pressure. Eliminates roof fan. Self-contained unit with filter, blower, motor, cabinet. Easily installed. Grease filter efficiency 96-98.6 percent. Copper mesh prevents transmission of flame. Models for 1000, 2000, and 3000 cfm.—Morrison Products, Inc.

60 Cube Replacement Air Filter

Four page technical bulletin describes physical properties and uses of "Ulok" cube type replacement air filter. The largest cube shape presents more filtering surface (1832 sq in.) to the air stream, providing for higher efficiency over far longer life with unusually low pressure drop.—Union Carbide Development Co., Div. of Union Carbide Corp.

61 Disposable Air Filters

Farr HP high efficiency, strainer type filters developed to operate at lowest pressure drop while providing highest efficiency and dirt holding capacity described in bulletin B-1300-4. The deep pleats of media provide large area within compact, pre-formed filter cartridge. Three interchangeable HP filter cartridges available to meet varying efficiency requirements.—Farr Co.

62 Dry Panel Type Air Filter

Data brochure CR describes "Pliotron" CR dry panel type, self-charging, electrostatic air filter for use in commercial and residential systems. Includes information on operation, engineering data and suggested specifications.—The Goodyear Tire & Rubber Co.

63 Flat Replacement Air Filter

Four page technical bulletin describes physical properties and uses of flat "Ulok" replacement air filter. Introduces new and advanced materials and designs to filter air efficiently. Included are graphs showing effectiveness of the air filter. —Union Carbide Development Co., Div. of Union Carbide Corp.

64 Germicidal Air Filter

Catalog sheet AH1244R describes new Fram germicidal filter which is "Permachem" treated. —Fram Aire Corp.

65 Heavy Duty Air Filter

Data brochure HD describes "Pliotron" heavy duty, dry panel type, self-charging electrostatic air filter. Included is information on operation, engineering data and suggested specifications.—The Goodyear Tire & Rubber Co.

66 High Efficiency Air Filtration

Bulletin 121A shows comparative atmospheric dirt concentrations by count, area and weight and comparative efficiencies of various types of air filters. Illustrates and describes Cambridge "Absolute," "Aerosolve" and "Micretain" filters, combination "Aerosolve"-charcoal filter frames and filter-blower units.—Cambridge Filter Corp.

67 High Efficiency Filters

Bulletin 132 describes "Aerosolve" filters with NBS efficiency on atmospheric dust from 95 to 35 percent with no maintenance beyond infrequent replacement of cartridges. Twenty-four in. deep filter (face area 24 × 24 in.) handles 1800 cfm at 450 fpm face velocity, 12 in. deep 1000 cfm at 250 fpm.—Cambridge Filter Corp.

68 High Velocity Air Filters

Bulletin 423 describes "E-Z-Wash" high velocity all-metal permanent air filter available in lacquered steel or aluminum. Offers high efficiency with low resistance. Functions with satisfaction at face velocities between 350 and 600 fpm. "E-Z-Oil" aerosol bombs available for re-oiling. —Continental Air Filters, Inc.

69 High Velocity Panel Air Filters

The Farr type 44 panel filter described in bulletin B-100-2B is all metal cleanable high velocity (350-690 fpm) viscous impingement filter, constructed of alternate layers of flat and crimped screen wire cloth coated with oil base adhesive. For ventilating and air conditioning, and paint, moisture, and grease elimination.—Farr Co.

70 Moisture Eliminator Blades

Leaflet describes moisture eliminator blades for industrial air conditioning—SP-009 copolymer of polystyrene and SP-010 rigid polyvinyl chloride. Shows suggested assembly. Resistant to chemicals, physical attack, easily cleaned.—Southern Plastics Co.

71 Permanent Air Filter Panels

"Kleenflo" filters are viscous impingement type, permanent, all-metal air filter panels particularly adaptable to recirculating air systems.—Air-Maze Corp., Subsidiary of Rockwell-Standard Corp.

See pages 2-59 and 2-60 for convenient reply card you should use to request copies of these bulletins

72 Renewable Media Air Filter

Traveling renewable media air filter that renews the media through manual operation described in bulletin B-1400-6. Designed to operate in pressure differential range from 0.3 to 0.6 in. of water, and from 350 to 500 fpm, the Farr "Manual Roll-Kleen" was developed for high performance, low cost installation.—Farr Co.

73 Space Filters

Eight page bulletin describing "Dustfoe" space filters for removing finely divided particulate matter without electronic or mechanically complicated parts. Presents performance data, construction details, test procedures and applications in business and industry.—Mine Safety Appliances Co.

74 Space Filters

Eight page bulletin 1505-5 on new MSA "Ultra-Aire" space filters with replaceable filter elements, constructed without separators and without heavy integral frame, describes features and advantages, sizes and shapes, performance and installation. Widely used to remove bacteria and prevent product contamination.—Mine Safety Appliances Co.

75 Synthetic Fiber Air Filters

Bulletin 431 on "Dycon" air filters which have graded synthetic fibers bonded into wool-like blanket, supported in aluminum frame, remove and retain even very fine dust particles from air stream. Dust collected throughout entire depth of media. Flushing with cold water restores filter to original resistance and dust holding capacity. Blanket can be replaced eventually.—Continental Air Filters, Inc.

76 Washable Air Filter

Four page brochure gives properties and performance data of "Microfoam" washable plastic air filter, a lightweight, corrosion resistant filter medium with high efficiency and dirt-loading capacity and minimum air flow resistance, with or without adhesive.—Microtron Corp.

77 Washable Dry Type Air Filters

Type P-61 is a washable, dry type air filter for heating and ventilating applications. Recommended for use where viscous coatings cannot be tolerated. Easily cleaned with water and detergents.—Air-Maze Corp., Subsidiary of Rockwell-Standard Corp.

Atomizing & Spray Nozzles

78 Industrial Nozzles

An 18 page catalog covering complete line of spray nozzles for industrial applications. Made of brass, stainless, Monel, hard rubber. Teflon in a wide range of pipe and capacity sizes, hollow and solid cone, wide and narrow spray angles.—Monarch Mfg. Works, Inc.

79 Oil Burner Nozzles

A 12 page catalog covering stainless steel domestic oil burner nozzles as well as hardened steel nozzles for heavy oil, variable capacity "by-passing" nozzles, air operated nozzles and oil burner air mixing equipment.—Monarch Mfg. Works, Inc.

Cements, Adhesives & Tapes

80 Adhesives for Duct Insulation

New catalog lists seven general purpose and special adhesives for fast, permanent bonding of light and medium density insulation to ducts. Properties include fire retardance; resistance to heat, cold, water and humidity; long tack range; high strength and wet strength.—St. Clair Rubber Co.

81 Adhesives for Insulation

Four page catalog contains basic information on a variety of adhesives for bonding high and low density insulation materials to sheet metal ducts; both solvent types and water dispersed adhesive products included. Data on a duct seam sealer for use on high pressure systems is covered in catalog.—Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers Div.

82 Adhesives and Sealants

Folder lists Permacel adhesives and sealants for insulating, sealing and sound damping duct work. Lists technical properties, uses and application methods.—Permacel.

83 Color Code Identification and Pipe Sealant

Leaflet P-PPCCL describes "At-a-glance" color coding for pipe and duct systems. Also pipe sealing.—Minnesota Mining & Mfg. Co., Tape Div.

84 Complete Line of Tapes, Adhesives

Fourteen page condensed data book lists complete Permacel line of tapes and adhesives. Gives technical data, uses, outstanding features, gov-

ernment specifications and complete product description.—Permacel.

85 Duct Liner Adhesive

Duct liner adhesive with reclaimed rubber base, "Tuff-Bond" M-102-H, is strong bonding, waterproof, of brush or trowel consistency and particularly formulated for applying duct liner and similar insulation to interior or exterior of sheet metal ducts. Can also be used for bonding porous and non-porous materials such as cork, fiber glass, metal, foam glass, rigid insulation, etc.—Goodloe E. Moore, Inc.

86 Fire Retardant Duct Liner Adhesive

"Tuff-Bond" No. 7 is a synthetic fire retardant duct liner rubber base adhesive, waterproof, brush or trowel consistency and with a wide temperature range. It is especially formulated for bonding of insulating materials and is an excellent vapor barrier. Recommended for taping and sealing of joints of insulation.—Goodloe E. Moore, Inc.

87 Insulation Adhesives and Coatings

Four page "Mira" data sheet 11 lists Miracle adhesives and coatings for insulation and includes a chart for selecting adhesives for each of the types of insulation.—Miracle Adhesive Corp.

88 Lap Sealer and Adhesive

"Tuff-Bond" No. 21c lap sealer and lap adhesive is clear synthetic rubber base adhesive primarily formulated for cementing and sealing laps of vapor barrier facings on thermal insulation such as aluminum foil, vinyl film, kraft paper, etc. Also recommended for bonding porous and non-porous materials such as cork, insulation, glass, metal, etc.—Goodloe E. Moore, Inc.

89 Masking Tapes

Leaflet describes "Shurtape" masking tapes of various types, including general purpose, stain resistant, and high temperature. Each is engineered with special features to meet special job requirements, it is pointed out in the leaflet.—Shuford Mills, Inc.

90 Plastic Tapes

General use booklet P-PTPFR describes "Scotch" brand plastic tapes for sealing, masking, coding, lane marking, etc.—Minnesota Mining and Mfg. Co., Tape Div.

91 Specialty Tapes

Leaflet describes "Shurtape" specialty tapes developed and engineered for specific purposes. Eight types are briefly described and illustrated, including metallized paper insulation tape.—Shuford Mills, Inc.

92 Strapping Tapes

Leaflet describes "Shurtape" strapping tapes, each of which is engineered to meet special job requirements. Types illustrated are flatback paper, glass filament reinforced; and woven glass "Mylar" laminated strapping tape.—Shuford Mills, Inc.

Controls & Instruments

93 Adjustable Angle Dial Thermometer

Bulletin 501M describes 3½ in. case, No. V80025 adjustable angle dial thermometer with chrome plated finish, furnished in standard ranges from minus 40 to 450 F. For rigid pipe mounting or with flexible tubing for remote reading, it is also available for flush mounting on panel boards. Has union or separable socket connections and averaging bulbs.—H. O. Trerice Co.

94 Air Conditioning Control Center

Two page form 76-4224 describes air conditioning selector control center for single zone systems, explains many advantages of having complete fingertip control of the three system functions—temperature, fan system and ventilation—from one central location. Panel is illustrated in full color, showing the convenient control dials.—Minneapolis-Honeywell Regulator Co.

95 Air Conditioning, Refrigeration Controls

Air conditioning and refrigeration catalog covers extensive line of automatic controls ranging from thermo-expansion valves for air conditioning and refrigeration to control systems including room thermostats, master control panels, relays, contactors, magnetic valves, etc., for residential, commercial and industrial air conditioning.—General Controls Co.

96 Automatic Control Handbook

Handbook F-9538 for architects, engineers, contractors, and users on "Electronic" automatic control reviews the basic principles and advantages of electronic and electric control equipment, provides the reader with a working knowledge of electronic control operation. All information is directed primarily to heating, ventilating and air conditioning application.—Barber-Colman Co.

See pages 2-59 and 2-60 for convenient reply card you should use to request copies of these bulletins

97 Automatic Pressure Controls

Eighty-four page catalog offers information on relief valves, hydronic heating valves, safety devices, pressure regulators, refrigeration controls and protective equipment. Contains capacity and spring range charts, installation and engineering information.—A. W. Cash Valve Mfg. Corp.

98 Automatic Zone Valves

Bulletin 1065-D14 details operation and installation of automatic zone valves for control of hot water, steam and radiant heating systems.—Sarco Co., Inc.

99 Cleaner for Electric Contacts

Liquid burnisher cleans electric contacts on all types of controls. Approved type of high pressure aerosol can with extension tube permits access to difficult areas without leaving any residue which might injure the contacts.—The Tankit Co., Inc.

100 Combustion Safeguard Control Centers

Twenty page bulletin C11 describes nine custom-engineered control centers and systems for combustion safeguard and automation. The starting sequences and design data are tabulated for each system and range up to a three boiler system with a combined steam flow of about 200,000 lb per hr.—Webster Engineering, Div. of Midland-Ross Corp.

101 Contact Pyrometer

Bulletin 4257 gives complete details on the "Alnor Pyrocon", a contact pyrometer for quick, accurate temperature readings of flat or curved, moving or stationary surfaces.—Alnor Instrument Co., Div. of Illinois Testing Laboratories, Inc.

102 Control in School Classrooms

Catalog F-9975 describes the package control systems used in today's conventional unit ventilators for classrooms. All aspects of classroom heating are covered, along with the unique sampling chamber method of control which eliminates need for wall thermostats.—Barber-Colman Co.

103 Control Units and Stations

Publication 6090 describes pushbuttons, selector switches, pilot lights, enclosures and flush plates in standard duty, heavy duty and the oiltight construction.—Allen-Bradley Co.

104 Control Valves

Catalog 98316 aids in selecting the proper valve (or lever motor), which is the final element in automatic process control. This requires careful consideration of many factors. To help choose the valve size, material, construction, and action most suitable to application, there is a section entitled "How To Select a Control Valve."—Taylor Instrument Companies.

105 Direct Reading of Air Velocities

Bulletin 2448 gives complete detailed information plus illustrations on the "Alnor Velometer" used for instant direct reading of air velocities in heating and air conditioning.—Alnor Instrument Co., Div. of Illinois Testing Laboratories, Inc.

106 Engineers' Guide for Automatic Control

Brochure F-8944 completely describes "Electrionic" control system for heating, ventilating, air conditioning. Features a control selecting guide which lists all factors to consider when selecting a control system for a commerical or industrial insulation. Individually describes electric, electronic and "Electrionic" systems.—Barber-Colman Co.

107 Fire Control Systems

Bulletin 66 covers engineered fire protection systems for all classes of hazards. Rate-of-rise, dry pipe and alarm valves; rate-of-rise controls for dampers, vents, motors. Fire-fog, airfoam, dry chemical and CO_2 systems are included. Advisory service available.—Automatic Sprinkler Corp. of America.

108 Flow Switches

Bulletin FSI-A describes a dependable, moderately priced type of automatic control or safety device that makes or breaks electrical circuit when flow in a pipe starts or stops. Shows wide variety of uses, such as controlling signal devices, alarms, motors, burners and metering devices. Typical use in air conditioning is detailed.—McDonnell & Miller, Inc.

109 Fluid Power Electric Valve

Four page form 76-4228 is an explanatory folder which details new fluid power electric valve for automatic control of radiators, convectors and fan-coil units. Photograph of valve in actual size is featured. Also highlighted are valve's neat design, quick response, unprecedented quietness, sealed-in reliability, rugged construction.—Minneapolis-Honeywell Regulator Co.

110 Gages and Controls

Complete gage and control catalog contains illustrations, prices and full details on Dwyer "Magnehelic" gages, manometers, air velocity meters, air filter gages, pitot tubes, pressure actuated switches, flow meters, combustion testing instruments. Diagrams, conversion curves, other technical data included.—F. W. Dwyer Mfg. Co.

111 Gages and Needle Valves

Catalog 76-G lists entire line of gages for all types of industry, including heating. Detailed listings insofar as ranges and sizes, as well as line drawings giving roughing-in dimensions of all of the gages shown, are included.—Marsh Instrument Co., Div. of Colorado Oil and Gas Corp.

• *Be sure to include your name and address when you use the reply card to request copies of these bulletins.*

112 Heating, Combustion and Smoke Controls

Catalog describes and illustrates electronic weather control, heat recorder and totalizer, electronic combustion and smoke control, "Smoke-Eye" indicating smoke alarms, zone heat control, "Varivalve" vent valve, "Thermovalve" thermostatic radiator air valve, "Vari-Quick" vent valve, motorized valves.—Heat-Timer Corp.

113 Heating Controls

Catalog covers advanced line of automatic controls for applications as domestic commercial gas fired, oil or coal, warm air, hydronic and electric systems.—General Controls Co.

114 Industrial Control Instruments

Catalog covers "Hydramotors," "Tork-Master" electric valve operators, "Hammel-Dahl" air operated proportioning valves and split body valves. "Foster" steam specialty and regulator valves and flow tubes for better automatic control for every commercial and industrial plant or process also covered.—General Controls Co.

115 Industrial Thermometers

Bulletin 252M describes new "Econ-O-Therm" series 4350 industrial thermometer with 6½ in. case, stainless steel frame front, plexiglass window, brass separable socket, red appearing mercury tube and with ranges minus 40-110 F, 30-240 F and 30-300 F. Particularly suitable for hot and cold water lines, etc.—H. O. Trerice Co.

116 Liquid Level and Flow Control

Bulletin ERS-A, on special applications of McDonnell products, covers a wide variety of liquid level and flow control applications—on standby pumps, hydro-pneumatic tanks, water chillers, proportioning systems, etc. All in all, there are 21 specific case studies and each one can suggest others.—McDonnell & Miller, Inc.

117 Liquid Level Gages

Bulletin 463A describes fully automatic remote reading systems featuring easy to read dials. Also included are static head systems and models for reading directly at the tank.—The Liquidometer Corp.

118 Magnetic Motor Controls

Six page circular describes unique design principles used in RA magnetic motor controls, shows how they make it possible to provide superior performance in unit half size, weight of conventional controls. Also described is new A-H ambient compensated overload relay, which provides accurate overload protection regardless of heat or cold variations.—The Arrow-Hart & Hegeman Electric Co., Industrial Control Div.

119 Motor Control

Condensed price catalog lists the commonly used electric motor control up to and including the size 4 rating, plus pushbuttons, limit switches and other accessories applicable to heating, piping, and air conditioning.—Allen-Bradley Co.

120 Pipe Line, Air Duct Thermometers

Eight page catalog 400 describes adjustable form pipe line and air duct type mercury thermometers and test wells.—Moeller Instrument Co.

121 Pipe Line Thermometers

Catalog 110 covers pipe line thermometers available in 5, 7, 8, 9 and 12 in. bronze case and red reading mercury tubing, with separable socket connections in various lengths to suit individual requirements.—The Philadelphia Thermometer Co.

122 Pneumatic Transmitters

Bulletins 360 and 361 cover "Ashcroft" pneumatic indicating and non-indicating (respectively) transmitters—pressure and temperature. Features, method of operation, operating and design specifications, optional accessories, dimensions, mounting, etc., included.—Manning, Maxwell & Moore, Inc.

123 Pyrometer for Low Temperatures

Bulletin 2146-C illustrates variety of thermocouples and gives complete details covering the "Alnor" type 2300-B pyrometer, a portable instrument with 6 in. scale for measuring low temperatures from minus 40 to 200 F.—Alnor Instrument Co., Div. of Illinois Testing Laboratories, Inc.

124 Recorders

Catalog 98286 describes "Transcope" 90J series recorders for recording or indicating three process variables. Provides set point transmitter, automatic-to-manual and cascade switching levers; transmitter, controller, process output and cascade indicators. "Servomatic" motors with 150 times more power for pen positioning permit integral high-low electric or pneumatic alarms. —Taylor Instrument Companies.

125 Reduced Voltage Starters

Publication 6088 deals with automatic reduced voltage starting for low voltage squirrel cage motors.—Allen-Bradley Co.

126 Refrigerant Flow Control

Expanded catalog 104 describes various refrigerant flow control devices and accessories such as packed and packless, shut-off, relief and check valves; driers and filter-driers—both sealed and cartridge types; strainers and indicators—both liquid and moisture-liquid types. —Henry Valve Co.

127 Refrigerating and Air Conditioning Controls

Catalog contains installation, application, tabular and descriptive information for sizing and selecting thermostatic expansion valves, refrigerant distributors, solenoid valves, suction line regulators, hot gas bypass valves, float switches, high side float valves, evaporator controls and reversing valves for all refrigerants and all types of applications.—Alco Valve Co.

128 Regulators, Gauges, Expansion Joints

Catalog 1700-C, "Products of Building Construction and Maintenance," covers self-operated temperature regulators for water heaters, space heating and other uses; bellows and diaphragm type pressure regulators; thermostatic mixers; packless expansion joints; and "Acragage" high quality pressure gages.—Fulton Sylphon Div., Robertshaw-Fulton Controls Co.

129 Regulators, Registers, Grilles and Diffusers

A complete line of manually controlled surface, concealed, high pressure, floor-line, remote control and air-split regulators; dampers; adjustable air conditioning registers, grilles and baseboard diffusers.—Young Regulator Co.

130 Relative Humidity Transmitter

Catalog 98338 presents the 207T series transmitters which measure the relative humidity around an integral sensing element and convert this into a proportional air pressure output signal. The signal from this non-indicating, pneumatic motion-balance instrument can be transmitted to a receiving indicator or recorder and controller.—Taylor Instrument Companies.

131 Selector for Motor Starters

Flip-type selector for wall or desk use makes it easy to select and specify the correct magnetic or manual starter for use with any single or polyphase 60 cycle, 1800 rpm, a-c squirrel cage motor. Includes data on heaters, pushbuttons, other auxiliary equipment.—The Arrow-Hart & Hegeman Electric Co., Industrial Control Div.

132 Solenoid Valves

Epoxy-Clad (completely waterproof) coils that eliminate any possibility of coil failure or burnout due to condensation, frost, oil, gasoline fluid spray, etc., are now available without extra cost in all standard solenoid valves featured in new J-E catalog 6 just off the press.—Jackes-Evans Mfg. Co.

133 Stainless Steel Industrial Thermometer

New BX series 9 industrial thermometer has an all stainless steel front, red appearing mercury tubing, glass enclosed, stainless steel bulb chamber, and is available in all forms at one standard price. A high quality industrial thermometer available at a budget price.—H. O. Trerice Co.

134 Standard Mercury Thermostats

New line of "Vap-Air" standard mercury thermostats featuring low cost and 30 day delivery are described in 18 page bulletin 684. Three standard merc thermostat groups are described—the well type for sensing case temperature, the duct type for gas or fluid temperature sensing, and the surface type for "area contact" temperature sensing.—Vapor Heating Corp.

135 Steam Condensate Meter

Cadillac condensate rotary meter measures steam condensate in atmospheric or vacuum systems and has high accuracy from rated capacities down to zero. This meter registers to ten million pounds, is inexpensive to maintain, is known for long life and comes in sizes from 250 to 12,000 lb per hr.—Central Station Steam Co.

136 Thermometers

Bulletin 356 covers complete line of industrial indicating thermometers particularly suited for hot and cold water lines—as well as air duct type. Adapt for separable socket or well, perforated steam bare bulb, tilting flange or union connection. All ranges in stock for fast delivery.—Palmer Thermometers, Inc.

Drying & Process Equipment

137 Bimetal Dial Thermometers

New catalog 225-D on 3 and 5 in. stainless steel case bimetal dial thermometers for air ducts and pipe lines.—Moeller Instrument Co.

138 Liquid Phase Heater

Bulletin 4023 describes new "Modulatic Hi-R-Temp" liquid phase heater which provides high temperatures at lower pressures. Fire is automatically proportioned over the full modulating range. Bulletin explains fully automatic operation and advantages.—Vapor Heating Corp.

139 Low Temperature Continuous Dryers

Brochure K-156, "Engineered Drying," describes new high speed, low temperature dryers for continuous drying processes. Continuous dryers replace batch operation in production of glue and gelatin, dairy products, chemicals, foods, pharmaceuticals, pigments, synthetic yarns, varnishes, etc.—Surface Combustion Div. of Midland-Ross Corp.

140 Low Temperature Refrigeration

Bulletins 95 and 105 describing "No-Frost" method of refrigeration for producing and holding temperatures of 0 F and below, giving completely automatic operation and continuous operation without shutdown for defrosting. Applications are industrial uses such as subzero testing, production of dry atmospheres and food freezing and storage.—Niagara Blower Co.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

141 Mixed Flow Fan

New MAC fan is only mixed flow fan designed for ventilating and air conditioning applications. It combines integral economical space-saving advantages of the axial, with true non-overloading horsepower curve of the centrifugal, featuring constantly rising, non-peaking pressure curve. Direct or belt driven.—Air Motion Research Div., Missile Dynamics Corp.

142 Steam-to-Water Convertors

New 12 page bulletin 50-1 describes the "Paracoil" series K line of steam-to-water convertors and gives capacity table from 0 to 15 psig steam. Units are for application in commercial, domestic and industrial systems employing forced circulation of hot liquids at low and high temperature levels.—Davis Engineering Div., Tube Reducing Corp.

Dust & Fume Collection

143 Exhaust System for Fumes, Smoke

Bulletin 650 automotive R6-60 describes, illustrates and gives complete selection data for overhead and underfloor exhaust system for car, truck and welding fumes. "Swing-O-Way" units for removing diesel and spot welding smoke use a retractable tubing up to 6 in. diameter which permits 180 deg swing range.—Ammerman Co., Inc.

144 Glass Cloth Dust Collector

Bulletin 283 describes new high temperature glass-fabric collector for greater than normal efficiencies. Illustrates different arrangements, dimensions and air volume ratings which range from 1900 to 21,400 cfm for single units. Bags are available in 11½ in. diameter and 14 to 21 ft lengths and can withstand 500 deg constant temperatures.—American Air Filter Co., Inc.

145 Industrial Vent Pipe

Twenty page brochure TR-237A tells architects and engineers of industrial plants the cost saving advantage of "Transite" pipe in venting industrial gases, mists, fumes and dusts. Give sizes, dimensional data on pipe, couplings and many fittings available for laying out venting systems.—Johns-Manville.

146 Oil Mist and Fume Precipitator

"Mistimaze", an oil mist and fume electronic precipitator, is compactly constructed and removes objectionable pollutions of oil mist, smoke and fumes from air exhausted from industrial operations.—Air-Maze Corp., Subsidiary of Rockwell-Standard Corp.

147 Reverse Air Jet Dust Filter

Eight page brochure on new model K "Aeroturn" reverse air jet dust filter describes principle of operation, details all components and new features, explains reverse air jet principle, describes construction and assemblies, contains brief specifications and list of sales offices.—Koppers Co., Inc., Metal Products Div.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

Electric Heat

148 Electric Hot Water Heating Boiler

New Precision electric boiler for all types of hot water or low pressure steam heating systems, ASME constructed, National Board approved, 20 year guarantee, and equipped with sequence controls and outdoor thermostat if desired, is available in 2,500,000 Btu output.—Precision Parts Corp.

When you make use of the handy reply card on pages 2-59 and 2-60 to ask for copies of the catalogs, bulletins and other data reviewed here, please type or print your name and address clearly so that the information you want can be sent you without delay. And don't forget to include your name and address on the card! Some of the cards have been returned to us without this essential information.

Fans, Blowers, Ventilators

149 Air-Over Motors

Bulletin describes air-over motors which mount directly in air stream of driven propeller or axial flow fan in cooling towers, exhaust systems, air cooled heat exchangers, condensers. Construction details, performance data and ratings given. Describes how these motors provide totally enclosed protection at a considerable saving for these applications.—Wagner Electric Corp.

150 Air Velocity Meter

Bulletin B-6 presents the Dwyer air velocity meter, an instrument for testing fan and blower discharge and inlet pressures, pressure drop across filters, balancing air conditioning systems, etc. Instrument comes in portable kit form which includes the dual purpose manometer, 18 in. stainless steel pitot tube, accessories and metal carrying case.—F. W. Dwyer Mfg. Co.

151 Belt Drive Power Roof Exhausters

Bulletins 60-CK, 60-AK describe new series of "KeyLine" spun aluminum, belt drive, centrifugal and axial exhausters for heavy duty service. Low contour, motor and drive mounted to side out of air stream. Automatic belt tightening device, non-overloading centrifugal wheel are features. Nine sizes, 212 models, capacities 725 to 27,000 cfm.—Jenn-Air Products Co., Inc.

152 Belted Ventilating Sets

Bulletin 410 covers types VCB and BVF belted ventilating sets for general exhaust use, in sizes from 12 through 36 in.—Barry Blower Co.

153 Cast Iron Fans

Catalog 707 covers new line of type CI exhausters featuring cast iron housings and sideplates for all types of air handling assignments and material conveying. Volumes to 3800 cfm, temperatures to 750 F, pressures to 18 in., three wheel types, five arrangements, adjustable discharge.—Clarage Fan Co.

154 Central Air Conditioning

Engineering catalog with illustrative and descriptive information and complete selection data on central plant conditioners, multizone conditioners, sprayed coil units, heating-ventilating units, cooling and heating coils. This catalog is notebook type and is index tabbed for easy and quick use.—Thermal Engineering Corp.

155 Centrifugal Fans

Bulletin A-1103 covers new line of "Airfoil" bladed centrifugal fans for general ventilation, air conditioning systems and industrial process applications. Fans feature high efficiency, quiet operation, non-overloading power characteristics and AMCA certified ratings. Available in 15 standard sizes, single and double inlet designs, and standard AMCA arrangements.—American-Standard Industrial Div.

156 Centrifugal Fans

Bulletin 400B covers type BBC non-overloading design, centrifugal fans in SWSI and DWDI, all arrangements.—Barry Blower Co.

157 Centrifugal Roof Exhaust Fan

Rugged centrifugal exhaust fan of weatherproof construction and low pleasing silhouette, designed for roof mounting on institutional or commercial buildings, is described in bulletin.—Davidson Fan Co.

158 Commercial Range Hood Ventilation

"Filtaire" commercial range hood ventilator collects grease, smoke, heat, odors from commercial ranges, fryers, etc., by range-level blower pressure. Eliminates roof fan. Self-contained unit with filter, blower, motor, cabinet. Easily installed. Grease filter efficiency 96-98.6 percent. Copper mesh prevents transmission of flame. Models for 1000, 2000, and 3000 cfm.—Morrison Products, Inc.

159 Curb for Roof Ventilators

Prefabricated "Insta-Curb" for roof ventilators has all welded, painted steel construction, speeds installation, assures correct mounting. Fiber glass insulation. Base and corner cants protect roofing, eliminate leaks and maintenance problems. Wood top curb for easy ventilator mounting. Comes completely assembled and ready for installation.—Swartwout Fabricators, Inc.

160 Direct Drive Fan Set Units

Bulletin 502 describes "Ready Units"—compact, direct connected, ready-to-run fan sets for handling clean air at temperatures to 200 F, volumes to 7500 cfm, pressures to 2 in. Low speed multiblade and also medium speed backward inclined blade wheels are available.—Clarage Fan Co.

161 Direct Drive Power Roof Exhausters

Bulletin 58-B describes CR and AR series centrifugal and axial direct drive power roof exhausters and CW direct drive wall exhauster. Capacities from 170 to 5750 cfm. Exclusive U-spring suspension virtually eliminates vibration noise, is guaranteed for life of fan. Performance and dimensional data, electrical characteristics, curb cap mounting diagrams.—Jenn-Air Products Co., Inc.

162 Direct Drive Pressure Blowers

Bulletin 603 describes complete line of direct drive pressure blowers, specifically designed for the high pressure requirements of industrial combustion, cooling, conveying and process systems. These compact, trouble-free units deliver from 100 to 8200 cfm at pressures ranging from 8 to 32 oz per sq in.—The New York Blower Co.

163 Fan Selection Guide

New 56 page selection guide bulletin C-104 gives complete engineering data on new line of AMCA rated centrifugal B fans. New backward curve wheels have non-overloading power characteristic over the operating range. Color coded capacity tables, output curves, dimensional drawings, etc. make selection of proper fan easy. —Chicago Blower Corp.

164 Fans

Revised bulletin F-104A details single and double inlet type BL limit load fans which are widely used to supply and exhaust air in heating, ventilating and air conditioning applications. Bulletin points up special features and economies of design, construction and performance and gives complete range of size and capacities.—Buffalo Forge Co., Air Handling Div.

165 Fans for Quiet Operation

Bulletin 592 describes the "AcoustaFan" which features a "Flow-Nozzle" air foil wheel designed specifically for quiet operation in capacities of from 6000 to 220,000 cfm, static pressures 3 in. wg through 11 in. wg. Quiet zone selection tables make an automatic selection of the quietest possible fan.—The New York Blower Co.

166 General Purpose Fans

Bulletin 602 covers complete line of direct and belt driven packaged fans capable of delivering from 160 to 19,000 cfm at static pressures up to 2 in. Easy to install and maintain, these units are available with weather cover for outdoor installation.—The New York Blower Co.

167 Gravity and Power Roof Ventilators

Lo., silhouette gravity type roof ventilators include patented rotary type, stationary, directional unit and continuous ridge. Low silhouette power types include horizontal and vertical discharge axial propeller fans. Both types have complete line of accessories. — Western Engineering & Mfg. Co.

168 Gravity and Power Ventilators

Complete 54 page catalog and engineering data 60-1 on Breidert "Air-X-Hauster" and "Pow-air-X-Hauster" gravity and power ventilators. Includes new square, rectangular, low silhouette models with translucent top available, making combination ventilator and skylight; specifications; capacity tables; test data; installation hints; wind velocity tables for U.S.; selection charts; and other data. — The G. C. Breidert Co.

169 High Speed Power Roof Ventilators

Bulletin DB3-300 describes new type UB power roof ventilators featuring high speed, high capacities for industrial and commercial application. Engineering data includes special construction features, dimensions, performances, and covers complete range of sizes and capacities. Available in five sizes delivering up to 33,300 cfm.—Ilg Electric Ventilating Co.

170 Induced Draft Fans

Sixteen page bulletin L-3 on mechanical induced draft fans for boilers describes features and construction, presents dimensional data, tables of recommended sizes (for oil, gas, and coal), and fan rating tables. Ordering and specification information included.—Lehigh Fan & Blower Div. of Fuller Co.

171 Industrial Fans

Condensed industrial fan catalog 259 gives capacities, sizes and wheels for applications covering air conditioning, heating, fume or high temperature exhausting, dust or material handling, induced or forced draft, roof ventilation, high velocity and general ventilation.—Chicago Blower Corp.

172 Materials Handling Fans

Twenty-eight page bulletin L-5 on type I.E. industrial materials handling fans describes features and construction. Due to uinque design, standard wheel is ideal for handling, dust-laden air and gases, and materials of a stringy nature such as paper, shavings, etc. Fan rating tables, dimensions, etc. given.—Lehigh Fan & Blower Div. of Fuller Co.

173 Mixed Flow Fan

New MAC fan is only mixed flow fan designed for ventilating and air conditioning applications. It combines integral economical space-saving advantages of the axial, with true non-overloading horsepower curve of the centrifugal, featuring constantly rising, non-peaking pressure curve. Complete range of sizes, direct or belt driven.—Air Motion Research Div., Missile Dynamics Corp.

174 Motor Application Guide

Sixteen page application guide bulletin 270B outlines electric motors ranging in size from 1/20 to 400 hp. Includes polyphase, single phase and direct current motors. Factors to consider in motor selection are discussed along with numerous motor selection charts.—Century Electric Co.

175 Powered and Gravity Roof Ventilators

Three single sheets designed to be inserted in Penn catalog binders are an informative series of factual information designed "to set the record straight" on engineering data that affects the selection and specification of powered and gravity roof ventilators and accessory equipment.—Penn Ventilator Co. Inc.

• *Be sure to type or print your name and address clearly when you request copies of these catalogs and bulletins.*

176 Roof Ventilators

New catalog describes 59 new belt and direct drive fiber glass "Fiber-Aire" roof ventilators with 180 to 13,150 cfm capacities. New type air flow guides eliminate internal air shocks and increase efficiency. Available with stainless steel wheels. Bonded fiber glass housings with molded-in skyblue color are virtually indestructible and silent.—Swartwout Fabricators, Inc.

177 Roof and Wall Exhausters

Bulletin 100-60 covers line of spun power and gravity roof and side wall exhausters under the trademark "AirXpeler," and "AirMpeler" line of belt-driven units, "HiBoy" and "LoBoy" units of backward curve centrifugal design, along with fabricated gravity ventilators.—Ammerman Co., Inc.

178 Selection Guide for Fans

New 60 page selection guide bulletin A-104 gives detailed engineering data on complete new line of AMCA rated quiet, efficient, design 10 airfoil bladed fans. Capacity tables are color coded to match any operating condition. Output curves, dimensional drawings and other useful data included.—Chicago Blower Corp.

179 Small Centrifugal Fans

Eight page bulletin DB2-306 describes and illustrates complete and versatile "Util-A-Set" line of small forward curved centrifugal fans consisting of direct connected, belted and portable models for ventilating applications where low pressure, small volume and quiet operation are desirable. Detailed selection data given for each model.—Ilg Electric Ventilating Co.

180 Steel Plate Exhausters

Bulletin 600 covers type RD steel plate industrial type radial blade exhausters for dust collection, material handling and general industrial use. Sizes from 9 through 60 in.—Barry Blower Co.

181 Ventilator and Skylight

"Lite-'N-Aire" heat valve combination ventilator and skylight is described in four page illustrated folder. High efficiency, low cost ventilator provides quantities of pleasant, natural light whether damper is open or closed. One unit, one roof opening, one installation cost. For industrial, commercial and institutional use.—Swartwout Fabricators, Inc.

Fuel Burning, Stacks & Vents, Draft

182 Atmospheric Gas Burner

Bulletin B8 describes the Webster "Kinetic" gas burner and gives complete information on how to select burner size, automatic operating controls, combustion safeguard and control valves. Charts and diagrams illustrate information.—Webster Engineering, Div. of Midland-Ross Corp.

183 Automatic Rotary Burners

These fully automatic Johnson burners are built with metering pump, three-way magnetic oil valve and suction pump to provide sure, smooth automatic starts even after lengthy shutdown. Available in models for firing on oil only, gas only, or combination-oil-and-gas. Nine sizes, 28 to 560 hp.—S. T. Johnson Co.

184 Barometric Draft Control

Twenty page handbook and installation guide for barometric draft control explains why draft must be controlled, where to install a draft control, selecting the right size, how to install, and use of instruments in setting a control. Detailed information on several controls included in handbook.—Field Control Div., Conco Engineering Works, Inc.

185 Barometric Draft Controls

Barometric draft control installs on flue pipe near smoke outlet, regulates combustion air by controlling chimney draft. Self-contained; no electric, air or hydraulic connections being required. Models and sizes for all flue pipes—oil, gas, or solid fuel. Saves low first cost in fuel in first few months operation.—Walker Mfg. & Sales Corp.

186 Burner Equipment

Sixteen page booklet illustrates and describes Ray Burner equipment for firing oil, gas or combination oil/gas; manual, semiautomatic, and fully automatic models; rotary, pressure atomizing, inshot gas; packaged forced draft boiler-burner units. A burner for every domestic, commercial or industrial need.—Ray Burner Co.

187 Combination Oil and Gas Burners

These Johnson burners enable use of either fuel as price and convenience dictate. A flick of the switch makes the complete change-over from one fuel to the other. This switch can be controlled either manually or automatically. Produces real fuel economies. The equipment is available in nine sizes for every heavy-duty need.—S. T. Johnson Co.

188 Commercial-Industrial Firing Equipment

Newly revised 12 page catalog form 6503 (revision of 6260) outlines commercial-industrial firing equipment — gas, oil, gas-oil and coal. Included are such recent developments as the

series 33 firebox package generator and several new sizes of burners.—Iron Fireman Mfg. Co.

189 Control of Draft

Specifications and information for architects, engineers and contractors covering industrial heating and processing equipment applications are given in 12 page bulletin.—Field Control Div., Conco Engineering Works, Inc.

190 Directional Chimney Caps

Directional chimney caps that eliminate downdraft caused by trees, buildings, or other obstructions are described in bulletin. Venturi throat, sealed pivots, and counterbalanced construction assure sensitive, dependable performance. Sizes range from 4 to 12 in. base diameter. Reduces air turbulence at chimney top and improves chimney draft.—Walker Mfg. & Sales Corp.

191 Draft Inducers

Bulletin 1-59 describes draft inducers for heating boilers and power plants, ranging from small domestic and commercial heating units to those for boilers up to 120,000 lb per hr. Packaged design units are factory assembled, with air-cooled fan bearings and interchangeable inlet panels. Motor, turbine, or dual drive.—L. J. Wing Mfg. Co., Div. of Aero Supply Mfg. Co. Inc.

192 Factory-Built All-Fuel Chimney

Eight page, two color, illustrated bulletin RS-1 gives complete application, installation, and specification information on the durable, attractive, tile-lined Flintkote/Van-Packer factory-built residential chimney. Included are photographs, drawings, and charts together with complete product application data for new construction and for remodeling existing construction.—Van-Packer Div. of The Flintkote Co.

193 Flue Pipe Draft Inducers

Flue pipe draft inducers augment natural draft, make ample draft for chimneys that fail to provide for good combustion. Sizes available for flue pipes 4 to 24 in., oil, gas, or solid fuel. Simple installation, low initial and operating cost. Models for 110 volt, 60 cycle and 220 volts, 50/60 cycles.—Walker Mfg. & Sales Corp.

194 Forced Draft Burners

Forced draft "Package" burners provide smooth, efficient operation regardless of stack conditions, firebox pressures. Come completely assembled, wired, tested, ready to install. Powered by Johnson 53 burners in sizes 28 to 560 hp. Models for oil, gas, or combination oil and gas firing. Produce maximum efficiency at minimum fuel cost. —S. T. Johnson Co.

195 Forced Draft Gas Burner

Bulletin B14 gives complete information on seven sizes of Webster "Dynetic" packaged, forced draft gas burners from 800,000 to 3,200,000 Btu/hr. Also covered are special features available to meet local design or code requirements.—Webster Engineering, Div. of Midland-Ross Corp.

196 Fuel Economizers

New catalog describes fuel economizers which eliminate smoke and reduce oil, coal and coke heating expense as much as 25 percent. They produce a hotter fire by preheating secondary intake air up to 400 to 875 F to burn fuel and combustion gases without waste, smoke, soot, carbon deposits.—Farris Combustion Controls.

197 Fuel Oil Pump and Heater Sets

Eagan fuel oil pump and heater sets for preparation of heavy industrial fuel oils for proper combustion are described in bulletin.—Walter H. Eagan Co., Inc.

198 Fuel Oil Pump and Heater Units

Catalog 60-2 covers custom built, self-contained fuel oil pump and heater sets in wide range of types and sizes. Classes are type S for steam atomizing with oil pressure to 150 psig, type M for mechanical atomizing with pressures to 300 psig.—Faber Engineering Co., Inc.

199 Gas Burners

Four page leaflet describing inshot and "Adjusto V" power gas burners, the first for natural, LP, and mixed gases, 70,000 to 700,000 BTu per hr and the second for natural or mixed gases, 350,000 to 4,400,000 Btu per hr. Twenty-seven different sizes in these two models.—Hastings Air Control, Inc.

200 Gas Conversion Burners

"Lo-Blast" power inshot gas conversion burners for efficient gas firing all types of larger boilers and furnaces, in sizes from 700,000 to 20,000,000 Btu input. Available for all gases; fuel saving over atmospheric burners 10 percent or more. Motor and blower provide all combustion air, independent of stack draft.—Mid-Continent Metal Products Co.

201 Gas Conversion Burners

"Economite" power type gas conversion burners, used for converting all types of smaller boilers and furnaces to gas firing, range in size up to 700,000 Btu input. Ideal for downdraft units. Positive air supply provides 10 percent fuel saving over atmospheric burners. Inshot gun type design simplifies oil replacement. Quiet operation.—Mid-Continent Metal Products Co.

202 Incinerator Burner

Compact assembled "Incinomite" power type incinerator burner with capacities of 100,000 to 750,000 Btu can be readily applied to old or new incinerators. Provides positive combustion air to long luminous flame to dry and ignite refuse and eliminate smoke and fumes. Various controls systems available.—Mid-Continent Metal Products Co.

203 Logic of Stoker Heating

Twelve page brochure illustrates and discusses stoker-fed coal heating in schools, public buildings and institutional buildings. Contains comparative cost data, reporting heating costs with competitive fuels in actual, large metropolitan school district.—The Will-Burt Co.

204 Metal Gas Vent

Sixteen page, two color, illustrated bulletin MGS-34 gives complete application, installation, and specification information on the versatile, strong, and efficient Flintkote/Van-Packer metal gas vent. Photographs, drawings and diagrams aid in product selection and specification. Ordering information is included together with a handy product selection table.—Van-Packer Div. of The Flintkote Co.

205 Oil and Gas Burner Equipment

Catalog 54-1 covers oil and gas burner equipment, including wide range of steam and mechanical fuel oil burners; multi-port velocity steam atomization for boilers with large load fluctuations; mechanical burners for boilers with small load fluctuations, oil burners for pulverized coal burners to 1000 gph; combination oil-gas burner units.—Faber Engineering Co., Inc.

206 Oil, Gas and Dual Fuel Burners

Form 5808 describes light oil, gas, and dual fuel oil-gas burner designed for operation against firebox pressure. Fires No. 2 fuel oil and/or natural or LP gas. Special burner head produces high combustion efficiency and prevents flame pulsation. Models available for firing pressurized or natural draft boilers.—Iron Fireman Mfg. Co.

207 Packaged Boiler

Bulletin AA-3 describes model AA "Amesteam" generator and shows photos of heavy oil, light oil and gas fired boilers. Cross sectional view shows well engineered design, pointing out unique feature of this packaged boiler. Sizes available in range of 20 to 600 hp; design pressure 15 to 250 lb.—Ames Iron Works, Inc.

208 Packaged Boiler User List

Bulletin GB-1 includes well-known users' list of "Amesteam" installations and gives sizes of packaged boilers available from 20 to 600 hp; 15 to 250 lb DP. Testimonial Letters and installations photos show wide acceptance of this generator.—Ames Iron Works, Inc.

209 Packaged Burner

Catalog 59-1 covers oil, gas, combination AF packaged burner with integrated burner-blower with axial flow; V-belt driven Nema 1750 rpm motor. Wide range of fuel input by steam atomizing or mechanical burners using Nos. 4, 5, or 6 oil and/or fixed ring gas burner. Electric driven combustion control, flame safeguard.—Faber Engineering Co., Inc.

210 Pressure Atomizing Oil Burner

Four page bulletin describes type C-45 pressure atomizing oil burner listed by Underwriters Laboratories for Nos. 4 and 5 fuel oils. Is a replacement for light oil burners in the range of 5 to 33 gph. Can use light oil without electrical heater in service, changing to Nos. 4 or 5 oil in future.—National Airoil Burner Co., Inc.

211 School Heating Data

Interim report "Gas Vs. Electric Heating at Shingle Creek School" on a study conducted by the Minneapolis school system, offers revealing data on two identical schools for guidance of architects, engineers and school officials. Offers ways to reduce costs and make operations more efficient.—Industrial and Commercial Gas Section, American Gas Association.

212 Self-Clearing Coal Conveyor

Four page bulletin illustrates and describes new power-reversing coal conveyor. Drawings show typical installations with single or dual discharge, and horizontal cross feed tandem operation.—The Will-Burt Co.

213 Smokestacks

Eight page bulletin IS-49 on factory-built, low-cost, insulated refractory smokestack offered by Flintkote's Van-Packer Div. for commercial and industrial application to incinerators, boilers, furnaces. Product information, application data, photographs, drawings, engineering and mechanical data. Typical specifications included for UL-listed model HT smokestack, and for models AP and BF.—Van-Packer Div. of The Flintkote Co.

214 Stokers

General catalog 525 describes and illustrates Detroit underfeed and overthrow spreader stokers for all industrial, institutional and heating plant installations. Wide range of sizes and capacities, the result of 60 years of leadership in the design, manufacture and installation of stokers.—Detroit Stoker Co., Div. of United Industrial Corp.

215 Translucent Gravity Ventilators

Complete 54 page catalog and engineering data 60-1 on Breidert "Air-X-Hauster" and "Powair-X-Hauster" gravity and power ventilators. Includes new square, rectangular, low silhouette models with translucent top available, making combination ventilator and skylight; specifications; capacity tables; test data; installation hints; wind velocity tables for U.S.; selection charts; and other data.—The G. C. Breidert Co.

Advertisers in Heating, Piping & Air Conditioning have furnished these descriptions of their catalogs, bulletins, and other helpful data. Copies are available on request.

Gaskets & Packing

216 Adhesive Products

Four page catalog contains basic information on a variety of adhesives for bonding high and low density insulation materials to sheet metal ducts; both solvent types and water dispersed adhesive products included. Data on a duct seam sealer for use on high pressure systems is covered in catalog.—Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers Div.

217 Asbestos Sheet and Gaskets

Eight page catalog describes single formula material that can be used wherever asbestos sheet gaskets are applicable. Lists over 120 different chemicals with which it can be used with proved safety, and includes a table of sheet sizes carried in stock. Gives prices and dimensions of cut gaskets in various types and sizes.—Durabla Mfg. Co.

218 Packings and Gaskets

Catalog MP describes all types of rubber packings, gaskets, rings, pump diaphragms, pump valves, etc.—Goodall Rubber Co.

219 Rubber and Latex

Illustrated 12 page bulletin gives technical data and applications for "Hycar" rubber raw materials for making gasketing, seals, O-rings, diaphragms, packing and other products.—B. F. Goodrich Chemical Co.

Hot Water & Steam Equipment

220 Automatic Pressure Controls

Eighty four page catalog offers information on relief valves, hydronic heating valves, safety devices, pressure regulators, refrigeration controls and protective equipment. Contains capacity and spring range charts, installation and engineering information.—A. W. Cash Valve Mfg. Corp.

221 Cast Iron Gas Boiler

Eight page bulletin, C-297 describes type J gas boiler and gives information on electronic control, dual fuel features, ratings and dimensions. Net ratings from 360,100 to 3,354,000 Btu per hr (14.3 to 129.1 hp).—Weil-McLain Co.

222 Central Heating Hot Water Boilers

Forms 78 and 104 cover complete line of copper and bronze heat exchanger boilers, gas fired, packaged with or without circulator, with 160 psi ASME and AGA inspection on all models. Boilers feature gas modulation on all models, step ignition in larger input models, manual reset secondary electrical high limit control, stainless steel burners.—Raypak Co., Inc.

223 Check Valves

New 16 page catalog 162 describes "Streamflow" center guided check valves in sizes 1 through 20 in. for pressures from 125 through 2500 lb. Available in cast iron, cast steel, stainless, bronze, aluminum and other alloys. Features described and illustrated, specifications and dimensions tabulated.—Miller Valve Co., Inc.

224 Classroom Heating, Air Conditioning

Bulletin CC-605 provides school heating, cooling and ventilating information and application of "Comfort Curtain" system. Covers research and air distribution, heat gain and loss, heat source — warm air, hot water, steam, electric and heat pump — and air conditioning and controls.—Lennox Industries Inc.

225 Compact Steel Boilers

Catalog SB107 gives new SBI ratings and engineering details on compact type steel boiler designed to compress maximum heating capacity into minimum floor space. It is available for oil, gas and coal firing. Capacities from 2930 to 39370 sq ft SBI net steam EDR new ratings.—Burnham Corp., Steel Boiler Dept.

226 Design Procedure for Panel Heating

Booklet entitled "A Simplified Design Procedure for Residential Panel Heating" enables one to determine the size of panel and the water temperature necessary to heat any room in a structure of normal construction.—Revere Copper and Brass Inc.

227 Electric Hot Water Heating Boiler

New Precision electric boiler for all types of hot water or low pressure steam heating systems, ASME constructed, National Board approved, 20 year guarantee, and equipped with sequence controls and outdoor thermostat if desired, is available in 2,500,000 Btu output.—Precision Parts Corp.

228 Forced Draft Package Boiler Units

Bulletin 149 D covers new line of "Kewanee" forced draft Scotch package units in sizes from 82 to 691 bhp, high and low pressures for varied heating and power application requirements. UL listed for gas, oil or combination gas-oil. Engineering and sizing data included.—American-Standard Industrial Div.

229 Gas Boiler

Bulletin describes completely packaged or partially assembled gas boilers for forced hot water, gravity or steam with net ratings from 38,300 to 172,500 Btu per hr. Information on dual fuel, tankless heater capacities, ratings, and dimensions are given.—Weil-McLain Co.

230 Gas Fired Industrial Boilers

Industrial boilers are available in a range of capacities from six sections with 350,000 Btu input to a twin 31 section boiler with a 4,200,000 input for city gases. Designed and built to comply with requirements of the ASME code; approved by AGA for operation with natural, mixed, manufactured or natural gas.—Mueller Climatrol Div. of Worthington Corp.

231 Gas Fired Water Heating Guide

Guide (entitled "Enough Hot Water . . . Hot Enough") to sizing, selection, installation of gas fired water heating systems for restaurants and cafeterias. Discusses need for ample quantities of 180 and 140 F water; types of dishwashing equipment described, including arrangements and sizes of water heating apparatus. Information on water and gas piping, venting, clearances.—Industrial and Commercial Gas Section, American Gas Association.

232 Gas and Oil Boilers

Wide range of "Fac-Pak" models of domestic and commercial cast-iron boilers for hot water and steam are completely wired and assembled at the factory. New "Petite" hot water boilers available for apartments and small homes.—Roberts-Gordon Appliance Corp.

233 Heating and Cooling Products

New 26 page "Hydro-flo" products catalog GC-1259A gives complete information about booster and universal pumps, relief and reducing valves, "Monoflo" and "Airtrol" fittings, water heaters and other hydronic specialty equipment.—Bell & Gossett Co.

234 Heating Specialties

Catalog 76-H shows complete line of valves, traps and vents, and includes capacity charts and roughing-in dimensions.—Marsh Instrument Co., Div. of Colorado Oil and Gas Corp.

235 High Temperature Water Generators

Advantages of "International-LaMont" high temperature water generators are described in new 16 page bulletin 1600. Engineering data section gives factual comparison between HTW and high pressure steam systems along with pertinent cost considerations. Typical pressurization and pumping arrangements are discussed and illustrated. —The International Boiler Works Co.

236 High Temperature Water Generators

Catalog GB-958 describes forced circulation hot water generators for medium and high pressures, temperatures. Featuring fully water cooled furnaces and adequate convection section for efficient operation, units can be shop assembled or field erected. For firing with commercial fuels as well as waste fuels in liquid, gaseous or solid form.—Union Iron Works.

237 Hot Water Boilers

Hot water boilers standardly furnished ASME 125 psi, 250 deg, and designed for all types of closed circuit hot water systems are also available for high temperature water application. Gas, oil or gas/oil fired, 126,000 to 5,000,000 Btu, steel water tube design.—Sid E. Parker Boiler Mfg. Co., Inc.

238 Hot Water Circulators

Bulletin 1551A describes complete line of hot water circulators, valves, fittings, specialties and controls. Typical installation diagrams, pressure drop table and complete product data are given. Manufacturer also supplies full line of convector and baseboard radiation, providing one source for everything on the job except boiler and piping.—Dunham-Bush, Inc.

239 Hot Water Heating Boiler

"Multi-Temp" hot water heating boiler, which represents a new concept in the use of gas for commercial and industrial installations, is described in bulletin. Sixteen sizes with a capacity range from 300,000 to 3,600,000 Btu per hr input. Provides "true" input modulation by employing a multiple of Hydrotherm units each equipped with its own set of controls.—Hydrotherm, Inc.

240 Hot Water Heating Boilers

Bulletin describes Hydrotherm hot water heating boiler of all cast iron construction, 11 sizes with a capacity range from 50,000 to 300,000 Btu per hr. A quality product, especially engineered for gas fired systems. Requires minimum installation space; is efficient in operation; and is competitively priced.—Hydrotherm, Inc.

241 Hot Water Packaged Boilers

Bulletin describes gas fired, cast iron packaged boiler, equipped with factory piped and wired accessories plus positive built in air elimination system. Assembly includes thermostat, dual aquastat, pressure reducing (fill) valve, diaphragm expansion tank, circulator, boiler dip tube, automatic float type air vent, self-energizing control circuit, relief valve, vertical draft hood.—Hydrotherm, Inc.

Use the handy postage-paid reply card on pages 2-59 and 2-60 to request copies you want.

242 How Radiant Panel Heating Works

Booklet entitled "Radiant Panel Heating—Nature's Own Comfort System" explains how radiant panel heating works and how it compares with other heating systems in comfort, reliability, performance and economy.—Revere Copper and Brass Inc.

243 Indirect Hot Water Boilers

All steel water tube boiler with built in copper heat exchanger with capacities of from 2640 to 1,152,000 Btu per hr is specifically designed to furnish volume domestic hot water, 254 to 1106 gal per hr, 110 deg rise, and for heating swimming pools.—Sid E. Parker Boiler Mfg. Co., Inc.

244 Individual Room Heating Units

Eight page form 5627-A presents information on heating by "SelecTemp" individual room units with non-electric thermostat control. Presented in clear, intelligible language and schematic drawings acceptable to both technical people and the layman.—Iron Fireman Mfg. Co.

245 Instantaneous Water Heaters

Twenty page booklet on indirect type instantaneous water heaters, their application, selection and installation is a help to those concerned with the problem of furnishing hot water for large commercial, industrial, or institutional buildings.—Bell & Gossett Co.

246 Package Fire Tube Unit

Bulletin B-3456 describes in detail boiler with patented wet back construction as pioneered by Titusville. Unique 3-pass design package fire tube unit attains 80 percent plus efficiency, delivering maximum economy, saving space, fuel and care. Adapted for gas, oil, and gas-oil combinations.—The Titusville Iron Works Co., Div. of Struthers Wells Corp.

247 Package Generators

New 16 page bulletin AA-2 explains features of package model AA "Amesteam" generator constructed to ASME code, has Underwriters label for both boiler, burner. Available to comply with FM, FIA. Sizes 20 through 600 hp; 15 to 250 lb DP. Air atomizing burner standard on modulated units. Modulating range 20 to 100 percent.—Ames Iron Works, Inc.

248 Package Steam Generator

Bulletin B-3255 describes and illustrates water tube package steam generator, completely assembled, shipped as a package unit, easily installed. Efficient 2-drum design is available in capacities up to 100,000 lb per hr of steam, with the Titusville package burner or other leading burners for gas, oil, and gas-oil combinations.—The Titusville Iron Works Co., Div. of Struthers Wells Corp.

249 Packaged Automatic Boilers

Bulletin BE400 provides output, fuel, dimension data on "Continental" packaged automatic steam and hot water boilers. Exclusive spinning-gas combustion that increases heat transfer illustrated. Guaranteed stack temperature and efficiency, reserve capacity for future needs, burner efficiency data, etc., discussed. Shows how two-pass construction assures low cost efficiency, compactness.—Boiler Engineering & Supply Co., Inc.

250 Packaged Automatic Boilers

Fully, illustrated catalog covers type FD "Webco Ray" packaged automatic boilers for firing oil, gas or combination gas/oil. Sizes 40 to 600 hp. Local service is through franchised distributor system. Catalog gives all dimensions, ratings and other data.—Western Boiler Co.

251 Packaged Boilers

Six page bulletin 601 describes economy, dependability, ease of installation of three pass Scotch marine packaged boiler for high and low pressure steam and hot water, capacities from 15 to 500 hp. Gas, oil or combination fuels. Conforms with ASME and SBI codes. Incorporates 5 sq ft per boiler hp.—Arkos Mfg. Co.

252 Packaged Boilers

New illustrated catalog describes "Webco-Ray Husky" series packaged boilers in sizes 20 to 125 hp. All units are completely automatic and burn all grades of fuel oil, natural gas or combination gas/oil.—Western Boiler Co.

253 Packaged Coal-Fired Boilers

The full line of "Coal-Pak Automatic" packaged unit boilers for burning low cost bituminous coal are described in 10 page bulletin 1100. Combustion controls as well as automatic coal feed and ash removal systems for rapidly following changing load demands are described. Units are available for low or high pressure service in sizes from 71.6 to 300 hp.—The International Boiler Works Co.

254 Packaged Hot Water Boiler

Type CC packaged fire tube boilers designed for hot water operations and for capacities from 670,000 to 11,720,000 Btu per hr are described in new catalog. Burning gas, oil or both, boiler is equipped with newly developed venturi-action mixing tube which overcomes the problems developing from improper boiler circulation.—Superior Combustion Industries, Inc.

255 Packaged Steam Boiler

Type CC packaged fire tube steam boilers for capacities from 20 to 350 bhp are described in new catalog. Although designed for limited space conditions, boiler makes no concession to quality. It is completely packaged unit which will burn gas, oil or both and combines simple installation with high efficiencies and operating economy.—Superior Combustion Industries, Inc.

256 Packaged Water Tube Boilers

Two complete lines of low and high pressure, forced draft water tube package boilers are de-

scribed in bulletin 1400. The "Compak" series of fire-tested units for oil and/or gas is offered in 22 sizes ranging from 12 through 750 hp. Engineering specifications are included.—The International Boiler Works Co.

257 Packaged Water Tube Boilers

Twelve page catalog describes type AS packaged water tube boilers for capacities from 4000 to 21,000 lb per hr of steam. Complete packages with rotary burners, integrated controls, soot blowers, refractory and insulation. Units have quiet rear-mounted draft fan which provides air cooling of furnace floor.—Superior Combustion Industries, Inc.

258 Packaged Water Tube Boilers

Packaged type MH steam boilers, completely integrated for fully automatic, semi-automatic or manual control, meet a broad range of steam requirements. Furnished for pressurized oil or gas firing, or both, also readily adaptable to stoker conversion. Superheaters of pendant or drainable type supplied when required.—Union Iron Works.

259 Pressure Atomizing Oil Burner

Four page bulletin describes type C-45 pressure atomizing oil burner listed by Underwriters Laboratories for Nos. 4 and 5 fuel oils. Is a replacement for light oil burners in the range of 5 to 33 gph. Can use light oil without electrical heater in service, changing to Nos. 4 or 5 oil in future.—National Airoil Burner Co., Inc.

260 Radiation

Condensed catalog containing two pages of information on each model of Shaw-Perkins "Panel-Vector" and "Airadiator" radiation. Descriptions, specifications, dimensions, ratings, etc. are included. Offers full literature on each model.—Shaw-Perkins Mfg. Co.

261 Remote Operation of Valves

For those concerned with valves and piping, bulletin sheet details Babbitt adjustable sprocket rim with chain guide, a simple device for remote operation of overhead or otherwise out-of-reach valves. Gives price list, ordering directions and cites accident reduction, waste prevention and simplification of piping layout.—Babbitt Steam Specialty Co.

262 Safety Controls for H.W. Heating Boilers

Engineering information in easy-to-follow form, that tells why safety devices are needed on hot water space heating boilers, which ones to use, and how to select them is given in bulletin P-30C. Liberally illustrated with drawings and diagrams.—McDonnell & Miller, Inc.

263 Safety and Relief Valves

Bulletin 660 illustrates and describes safety relief valves. Safety valves are approved by American Society of Mechanical Engineers suitable for steam and air service with relief valves suitable for liquid service. Valves furnished in either bronze or cast iron body with screwed or flanged connections.—O. C. Keckley Co.

264 Scotch Type Packaged Boilers

Modern scotch type three pass design gives these boilers certified efficiencies of over 80 percent; flue gas temperatures in the 400 to 450 deg range; 20 to 800 hp; and new SBI 5 sq ft per hp fireside heating surface ratings. Designed for oil, gas or oil/gas firing, and shipped in single units or boiler-burner packages.—Burnham Corp., Steel Boiler Dept.

265 Steam Boilers

Steam boilers available in gas, oil or combination gas/oil fired for high or low pressure application are furnished fully packaged with all controls wired ready for connection to utilities. Steel water tube design, 1½ to 150 hp.—Sid E. Parker Boiler Mfg. Co., Inc.

266 Steam Condensate Meter

Cadillac condensate rotary meter measures steam condensate in atmospheric or vacuum systems and has high accuracy from rated capacities down to zero. This meter registers to ten million pounds, is inexpensive to maintain, is known for long life and comes in sizes from 250 to 12,000 lb per hr.—Central Station Steam Co.

267 Steam Generator

Bulletin B-3250B gives performance data and descriptive information on "Ticotherm" steam generator. This modern design 2-drum unit with water cooled furnace wall tubes is both economical and efficient in operation, compact where space conditions and headroom are a limiting factor in the boiler room. Adaptable to stoker firing, gas, oil, and gas-oil combinations.—The Titusville Iron Works Co., Div. of Struthers Wells Corp.

268 Steam Generators

Catalog GB-958 describes and illustrates steam generators and allied equipment. Packaged and field erected units can be furnished for a wide range of capacities and pressures and arranged for stoker or gas, oil or gas/oil firing.—Union Iron Works.

269 Steam-to-Water Converters

New 12 page bulletin 50-1 describes the "Paracoil" series K line of steam-to-water convertors and gives capacity table from 0 to 15 psig steam. Units are for application in commercial, domestic and industrial systems employing forced circulation of hot liquids at low and high temperature levels.—Davis Engineering Div., Tube Reducing Corp.

270 Steam and Water Service Engineers' Manual

Specially prepared for plant use, this manual is for those whose job function covers operation and/or installation of steam-water service. Various control systems described and illustrated

include domestic hot water, instantaneous heat exchangers, fuel oil heaters, heat exchangers for cooling, pressure reducing, jacket water cooling and two-temperature hot water systems.—The Powers Regulator Co.

271 Suction Head Compensator

New, patented chamber which is installed at the suction side of pump contains a reservoir of water and compressed air which acts as a cushion smoothing out pulsations, and eliminates surges due to increases or decreases in the pressure. Effective in all water systems.—Cobra Pipe Supply & Coil Co.

272 Swimming Pool Heaters

Forms 114, 103 and 106 show complete line of pool heaters including the indirect, direct water tube and direct contact or spray type, available with automatic equipment specifically designed for swimming pools. All copper and bronze.—Raypak Co., Inc.

273 Temperature Regulators

Sixteen page bulletin 114B on "American" self-operated precision type temperature regulators, non-indicating and indicating. Features described and illustrated; valve construction, dimensions, ranges, and bulb selection data given; methods of sizing discussed.—Manning, Maxwell & Moore, Inc.

274 Volume Hot Water Supply Data

Sizing data form 98, bulletins 15 and 105 describe "Una-Temp", "Dual-Temp" and "Tri-Temp" packaged systems for volume hot water supply, 140 and 180 F services, attached to central boiler where applicable. ASME hot water storage tank, circulating equipment, immersion coils, boiler or water heater, mixing valve, controls included. Raypak Co., Inc.

275 Water Heater Temperature Controller

Catalog SF-758 covers "Instantrol" self-operated temperature controller for steam heated, instantaneous type water heaters. Provides extremely accurate control of heated water temperature on varying loads, plus elimination of temperature buildup on long standby at no load. Also available as a complete factory assembled and tested heater "package".—Fulton Sylphon Div., Robertshaw-Fulton Controls Co.

276 Water Tube Boiler

Bulletin 586-A (12 pages) describes line of fully modulating (4 to 1 turndown) "Modulatic" water tube boilers. Covers compact models in size range from 10 to 160 bhp (334,000 to 5,356,000 Btu per hr.) Explains principle of operation, tells how compactness and reliability are obtained.—Vapor Heating Corp.

• *Be sure to type or print your name and address clearly when you request copies of these catalogs and bulletins.*

Humidification, Dehumidification & Evaporative Coolers

277 Air Conditioning

Bulletin 140 on "Hygrol" air conditioner describes means of precise manipulation of humidity and temperature, air conditioning critical processes of drying, and holding heat-sensitive materials, using absorbent liquid to dry air at moderate temperature without refrigeration. Diagrams, photos, chart of dehumidification, units up to 20,500 cfm.—Niagara Blower Co.

278 Air Sterilizing Systems

Twenty page report, "Air Hygiene for Hospitals," discusses the problem of hospital infection and the findings of the Research Foundation, University of Toledo, on the removal of airborne bacteria. Included are charts and illustrations explaining the application of "Kathabar" air sterilizing systems for hospitals.—Surface Combustion Div. of Midland-Ross Corp.

279 Air Washers

"Capillary" air washers, basic to many installations where air is required at controlled conditions, described in section 10. Evaporative cooling minimizes refrigeration needs. Humidification, dehumidification, cleaning, scrubbing gases and fumes also functions of these systems. Refrigeration may be incorporated or added later. "Capillary" cell features high saturation efficiency, low resistance.—Air & Refrigeration Corp.

280 Central Air Conditioning

Engineering catalog with illustrative and descriptive information and complete selection data on central plant conditioners, multizone conditioners, sprayed coil units, heating-ventilating units, cooling and heating coils. This catalog is notebook type and is index tabbed for easy and quick use.—Thermal Engineering Corp.

281 Cooling Towers

Acme "Flow-Mizer" cooling towers reduce water waste by as much at 97 percent in air conditioning, refrigeration, industrial cooling. Features include all-plastic "Acme-Pak" decking, centrifugal action spray distribution, Z-design drift eliminator packs with "file drawer" construction, complete service accessibility, etc. Ten models in capacities from 20 to 175 tons.—Acme Industries, Inc.

282 Duct Type Humidification Equipment

Designed for installation in existing or planned duct circulating systems, the standard Walton

duct type humidifiers described in this catalog atomize from 3 to 24 lb per hr of water vapor. The catalog offers full engineering information, plus specific application and usage data.—Walton Laboratories, Inc.

283 Humidification

Complete data on air-controlled and electrically-controlled unit steam humidifiers for duct or area installations is given in booklet on humidification for profit. Describes problems caused by winter-time dry air and effect on human comfort, as well as on hygroscopic materials. Contains condensed data on humidifier selection, sizing, location, installation.—Armstrong Machine Works.

284 Humidification

Bulletin is designed to assist architects, engineers and contractors in technical aspects of commercial and industrial humidification. Includes estimating the capacity, sizing and selecting equipment. This bulletin also covers the humidification requirements of more than 70 industrial applications.—Walton Laboratories, Inc.

285 Moisture Eliminator Blades

Leaflet describes moisture eliminator blades for industrial air conditioning—SP-009 copolymer of polystyrene and SP-010 rigid polyvinyl chloride. Shows suggested assembly. Resistant to chemicals, physical attack, easily cleaned. —Southern Plastics Co.

286 Space Type Humidification Equipment

Catalog covers standard space type atomizing humidifiers, together with application and engineering information for ductless installations. Self-contained humidity stations in several sizes generate from 1 to 24 lb per hr of water vapor. —Walton Laboratories, Inc.

Insulation (& Sun Heat Control)

287 Adhesives for Duct Insulation

New catalog lists seven general purpose and special adhesives for fast, permanent bonding of light and medium density insulation to ducts. Properties include fire retardance; resistance to heat, cold, water and humidity; long tack range; high strength and wet strength.—St. Clair Rubber Co.

288 Adhesives for Insulation

Four page catalog contains basic information on a variety of adhesives for bonding high and low density insulation materials to sheet metal ducts; both solvent types and water dispersed adhesive products included. Data on a duct seam sealer for use on high pressure systems is covered.—Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers Div.

289 Blowing Agents for Polyurethane Foams

The properties and advantages of using "Freon" blowing agents for polyurethane foams rather than carbon dioxide are discussed. Insulation value, compression strength, resistance to moisture vapor, adhesion to metals, less thermal cracking, better control of density are among the foam properties improved by using "Freon" blowing agents.—E. I. du Pont de Nemours & Co., "Freon" Products Div.

290 Data Book on Pipe Insulation

Folder presents product data and specifications for flexible foamed plastic material for refrigeration and chilled water lines, dual temperature lines and heated lines up to 220 F. Includes technical data book containing insulation thickness selector, equivalent thickness chart and heat loss table. Folder includes data on same materials in sheets.—Armstrong Cork Co.

291 Duct Insulation

Eight page catalog ULD describes the use of "Ultralite" long textile type glass fiber insulation for duct wrap and duct liner. Characteristics and application methods, together with available and suggested thicknesses, are listed. Facings available, including new gray fire resistant coating, shipping information and specifications are given.—Gustin-Bacon Mfg. Co.

292 Duct Insulation

Twenty page AIA literature describing the full line of Owens-Corning Fiberglas duct insulation and liners gives complete product description, specifications and application instructions.—Owens-Corning Fiberglas Corp.

293 Duct Liner

Eight page catalog ULD describes the use of "Ultralite" long textile type glass fiber insulation for duct wrap and duct liner. Characteristics and application methods, together with available and suggested thicknesses, are listed. Facings available, including new gray fire resistant coating, shipping information and specifications given.—Gustin-Bacon Mfg. Co.

294 Equipment Insulation

Sixteen page AIA literature describes the full line of Owens-Corning Fiberglas equipment insulations with complete product description, specifications and application instructions.—Owens-Corning Fiberglas Corp.

295 Expanded Polystyrene Insulation

Eight page brochure discusses "Uni-Crest" expanded polystyrene insulating material. Product is described, its physical properties listed, standard dimensions are given, and thicknesses for a wide range of temperature conditions are recommended. Photos and drawings illustrate various uses, and simplified techniques of installation and finishing are discussed.—United Cork Companies, Uni-Crest Div.

296 Fiber Glass Duct Insulation

Six page form IN-285A describes properties, characteristics and product forms and explains and illustrates application methods for "Microlite" fiber glass duct insulation. Tables show thermal performance, recommended thicknesses, types of available vapor barriers, fire hazard rating and compliance with federal specifications.—Johns-Manville.

297 Fiber Glass Duct Liner

Eight page form No. IN-302A describes function of dual density design, acoustical and thermal properties, product characteristics and application methods including tables on thermal conductivity, noise reduction and surface friction coefficients, fire hazard rating, sizes and packaging of "Micro-Bar" fiber glass duct liner. Drawings show construction of integral nosings and shiplap joints.—Johns-Manville.

298 Fiber Glass Pipe Insulation

Eight page form No. IN-237A explains construction and application features and includes a guide to specifications for application and finishing for various types of service for "Micro-Lok" fiber glass pipe insulation. Also given are descriptions of available jacket materials, thermal conductivity curve, and table of sizes.—Johns-Manville.

299 Flame Resistant Vapor Barrier Line

Product data folder on "Pyro-Kure" flame resistant vapor barrier line, includes actual samples, UL fire hazard classifications, physical property data on all grades, results of testing by various universities and laboratories, as well as typical application suggestions.—American Sisalkraft.

300 Foamed Plastic Pipe Insulation

Four page bulletin IN-213A describes "Aerotube" foamed plastic pipe insulation and gives data on installation for various types of pipe and tubing, as well as tables of recommended thicknesses and thermal and physical properties. —Johns-Manville.

301 Insulated Enclosures

Catalog section 50 describes enclosures of "A& R" factory insulated panels, designed to suit the conditions of application, indoor or outdoor use, amount of insulation and ready access. Factory test assembly and match-marking facilitate job site savings.—Air & Refrigeration Corp.

302 Insulating and Refractory Material

Four page booklet FS-1 contains background data on "Foamsil" insulating and refractory material, along with photos of product features and a brief case history. Also gives available sizes and shapes of this 99 percent pure fused silica material along with its physical characteristics. —Pittsburgh Corning Corp.

303 Insulation for Hot and Cold Piping

Four page booklet FI-108 introduces "Foamglas Stay-Dry" insulation for commercial applications from 35 to 350 F. Contains photos illustrating product features, application specification, suggested thicknesses, available sizes and thicknesses for iron pipe and copper tubing, and a list of its physical properties.—Pittsburgh Corning Corp.

304 Insulation and Refractory

Twelve page booklet FI-106 lists benefits of "Foamglas" insulation, shapes and thicknesses, outlines application procedure such as pipe insulation(-450 to +800 F), with application photos and list of accessory materials. Also contains information and properties on "Foamsil" acid-resistant insulating refractory of 99 percent pure fused silica glass.—Pittsburgh Corning Corp.

305 Insulation Tubing for Copper Lines

Properties, test data and specifications applicable to "Cell-Tite" insulation tubing for copper lines are given in eight page bulletin.—B.F.Goodrich Sponge Products.

306 Pipe Insulation

Eight page booklet describes the characteristics and application data for one piece molded "G-B Snap-On" pipe insulation of fine glass fibers. Application specifications cover heating, plumbing, insulation of valves and fittings, cold piping, dual temperature and outdoor piping. Thickness charts, and information about sizes, packaging and available jackets are also included in booklet.—Gustin-Bacon Mfg. Co.

307 Pipe Insulation

Thirty-two page AIA literature describes the full line of Owens-Corning Fiberglas pipe insulations with product description, specifications, and application instructions.—Owens-Corning Fiberglas Corp.

308 Pour Type Underground Insulation

Comprehensive 44 page booklet describes "Insul-Fil" pour type underground insulation and its application. Featured are engineering drawings, heat loss determination graphs and other information designed to guide the engineer and contractor to an economical and trouble free installation.—Miracle Adhesives Corp.

309 Preformed Pipe Insulation

Bulletin 37-D illustrates preformed pipe insulation that stops condensation and sweating. Data

shows specifications, low K factor, light weight, long life, closed-cell construction and installation methods on new or installed dual temperature pipes and tubes.—Presstite Div., American-Marietta Co.

310 Specifying Aid for Pipe Insulation

"Insulation Specifier" for "Armaflex" flexible foamed plastic pipe insulation with a built-in vapor barrier contains product data sheets, specifications, thickness selector and an engineering guide. Film resume sheet briefly describes two informational sound-slide films available for individual viewing or group meetings.—Armstrong Cork Co.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

311 Thermal Conductivity Tester

Apparatus and procedure for measuring the thermal conductivity of insulation materials is discussed in bulletin. The apparatus is designed for use with rigid plastic foams but the procedure can be used for other solid materials.—E.I. du Pont de Nemours & Co., "Freon" Products Div.

312 Underground Pipe Insulation

Brochure on "Witcolite" granulated, resilient adhesive material which forms three zones of insulation for underground hot or cold pipes and provides corrosion and water resistance. Cured anti-corrosive zone, air pocketed sintered zone, and granular zone provide maximum thermal insulation. Describes advantages, gives installation instructions, typical properties, technical information.—Witco Chemical Co., Inc.

Motors, Bearings & Drives

313 A-C Motors

Bulletin B-2106 gives "inside story" of new "Duty Master" a-c motors from 1 through 250 hp. Lightweight, low inertia rotor permits rapid response and many stops and starts without overheating. Stator insulation, "Metermatic" lubrication and rugged cast iron frames promise long life and trouble-free operation.—Reliance Electric and Engineering Co.

314 Ball Bearing Units

Bulletin 758 describes exclusive design and engineering features of ball bearing units. The literature has a large exploded illustration with engineering and craftsmanship feature callouts. Bulletin is also highlighted with manufacturing and several application photographs.—SealMaster Bearings, A Div. of Stephens-Adamson Mfg. Co.

315 Bearing Units

Bulletin 359 describes the L, SL, LP, LFT series L low cost, precision bearing units. The literature features comprehensive engineering and technical data, specifications, photographs and basic mounting arrangement diagrams. Bulletin also offers suggested applications and uses.—SealMaster Bearings, A Div. of Stephens-Adamson Mfg. Co.

316 Close Coupled Motors

Bulletin MU-244 describes polyphase squirrel cage motors, 1 hp and larger with NEMA 'C' faceplates for close coupled centrifugal pump applications. Construction details, ratings, principal mounting dimensions and enclosure types available are listed, along with other mechanical and electrical features of the motors.—Wagner Electric Corp.

317 Electric Motors

Brochure C-040 describes all types of integral horsepower electric motors including re-rated designs from 1 to 800 hp, a-c motors of squirrel cage and wound rotor types, d-c motors and generators, variable speed drives, gearmotors and high frequency equipment.—Electro Dynamic Div. of General Dynamics Corp.

318 Flexible Cushion Couplings

Twenty page bulletin 901 covers three types of "Para-flex" flexible cushion couplings with rubber-bonded cord flexing members. Unique design provides for angular and parallel misalignment and end float of shafts, plus vibration absorption. "Taper-Lock" bushings insure quick and easy installation. New types available for high speed, high torque applications.—Dodge Mfg. Corp.

319 Fractional Horsepower A-C Motors

Bulletin B-1675 tells comprehensive story of features of new Duty Master fractional horsepower a-c motor line, available in frame sizes 48 and 56. Pictured are protected stator, connection terminal board, sleeve bearing and centrifugal cutout. It is compact and runs 10 percent cooler than similar units.—Reliance Electric and Engineering Co.

320 Fractional Horsepower Motors

Four page bulletin SB-177 showing construction and design details of single phase and polyphase motors for the heating, ventilating and air conditioning industry in 48 and 56 frame.—Marathon Electric Mfg. Corp.

• *Your comments on this Trade Literature Supplement to Heating, Piping & Air Conditioning are invited.*

321 Inherent Motor Protection

Four page bulletin M1968A describes inherent protected open motors, UL approved, ¼ to 3 hp, explaining how they are self-protected against the conditions that cause most three-phase motor failures.—Kingston-Conley, Inc., Subsidiary of Howell Electric Motors Co.

322 Integral Horsepower Motors

Four page bulletin SB-186 showing construction and design details of integral horsepower motors from frames 364U through 445US. Complete with ratings and dimensions.—Marathon Electric Mfg. Corp.

323 Motor Application Guide

Sixteen page application guide bulletin 270B outlines electric motors ranging in size from 1/20 to 400 hp. Includes polyphase, single phase and direct current motors. Factors to consider in motor selection are discussed along with numerous motor selection charts.—Century Electric Co.

324 Motor Selector

Howell motor selector bulletin L-1661A lists selection and specification data for complete a-c motor line, 1/40th to 300 hp; standards and specials; wide range of voltages, speeds, mountings, enclosures. Also, gearmotors, speed reducers, generators and industrial grinders.—Howell Electric Motors Co.

325 Motors

Howell condensed full-line catalog FL-2 contains photographs, application and performance information, electrical and mechanical types available, enclosures for single and polyphase a-c motors in size range 1/6 through 300 hp.—Howell Electric Motors Co.

326 Quality Control for Motors

Bulletin Q-50 describes new quality control procedures for industrial electric motors that were developed from a program producing the higher standards of quality and dependability necessary for atomic power submarine motors. Includes wire, bearing, environmental and winding testing, etc.—Electro Dynamic Div. of General Dynamics Corp.

327 Pillow Blocks

Bulletin 1058 describes exclusive design and engineering features of LP pillow block, L series and SL series bearing units. The literature highlights the economy, performance and quality of these low cost, precision units. Bulletin features comprehensive engineering and technical data, specifications and photographs of the new bearing units.—SealMaster Bearings, A Div. of Stephens-Adamson Mfg. Co.

328 Protected Integral Hp Motors

Four page bulletin SB-180 showing construction and design details of 4-in-1 integral horsepower motor in frame sizes from 182 through 326U. Shows typical performance curve, ratings and dimensions. 4-in-1 protection, splashproof, weather protected, guarded and drip-proof.—Marathon Electric Mfg. Corp.

329 Selection of Motors

Catalog AEB 1059 is designed to assist motor users, re-sellers, and specifiers in the preliminary selection of a suitable motor. A wide range of motors is illustrated and a number of mechanical variations are shown.—Fairbanks, Morse & Co.

330 Shaft Mounted Speed Reducers

Bulletin A692 describes torque-arm shaft mounted speed reducers in capacities up to 170 hp, output speeds 10 to 400 rpm. Information on line of 55 models, single and double reduction gearing, 5 to 1, 15 to 1, 25 to 1 ratios. Shaft mounting eliminates reducer foundation, flexible coupling and sliding motor base.—Dodge Mfg. Corp.

331 Sheaves and Belts

Bulletin A-661 describes completely new line of "Dyna" V-belt drives featuring smaller and lighter sheaves and V-belts of higher capacity at substantially lower cost. Capable of delivering up to three times as much horsepower in a given space as conventional V-belt drives.—Dodge Mfg. Corp.

332 Totally Enclosed Motors

Bulletin B-030 describes re-rated totally enclosed, non-ventilated and fan cooled motors, both standard and explosionproof designs. Includes special quality control operations assuring extra dependability. Cutaway view of a 60 hp TEFC frame 405U featured in the centerfold. —Electro Dynamic Div. of General Dynamics Corp.

333 V-Belt Drive

Single, endless V-ribbed belt of "R/M Poly-V" drive runs smoothly over grooved sheaves to deliver more power in the same space with reliability. Eliminates excessive vibration, noise, belt and sheave wear, and length matching problems; drive life is much longer and two cross sections fulfill every heavy duty requirement for industrial air conditioning blowers, pumps and compressors.—Raybestos-Manhattan, Inc., Manhattan Rubber Div.

334 V-Belts

Catalog BF describes "Hi-Capacity" and fractional hp V-belts, with complete dimensional data covering both types.—Goodall Rubber Co.

335 V-Belts

Fourteen page catalog 179 on "U. S. Royal" variable speed V-belts with information on standard belt sizes, a changeover guide, and data on engineering assistance and stocks. Construction of the belts is carefully illustrated and described.—Mechancial Goods Div., United States Rubber Co.

Odor Control, Air Freshening

336 Dust and Odor Filter Frame

Product data sheet 131 illustrates new Cambridge "Aerosolve"-charcoal filter frame specially designed to simplify installation and servicing of the two types of filters. Available for charcoal filter of user's choice or as complete packaged unit. Information on dimensions, efficiencies and pressure drops is included.—Cambridge Filter Corp.

337 Purification Equipment

Bulletin 108A describes and illustrates "Dorex" activated carbon air purification equipment, C cells and H canisters and gives data on equipment selection, installation and application. Included is information on replacement service and discussions of activated carbon and conditions for proper purification.—Connor Engineering Corp.

338 Room Air Cleaner

Distinctive new air cleaning device originally manufactured to reduce airborne bacteria in hospitals is now available with new triple filters and full-power pack for homes, business and industry where air cleanliness is a desirable hygienic precaution.—Fram Aire Corp.

339 Spray Deodorizer

"Neutroda" spray for deodorizing and control of fungus and mildew odors in air conditioning and warm air systems is also effective on fuel oil and gasoline leaks and spills as a deodorizer and neutralizer.—The Tankit Co., Inc.

Parts, Clamps, Anchors, Bolts, Screws, Etc.

340 Metal Framing Handbook

Catalog 710 entitled "Unistrut Metal Framing Construction and Maintenance Handbook" contains complete information for the use of Unistrut in framing, supporting and attachment applications in the heating, piping and air conditioning field.—Unistrut Products Co.

341 Surface Anchors for Insulation

Three 4 page "Anchor" and "Mira" brochures describe surface anchors and how they are used for applying insulation without need for mechanical attachments.—Miracle Adhesives Corp.

• *Your comments on this Trade Literature Supplement to Heating, Piping & Air Conditioning are invited.*

Pipe, Tube, Hose & Conduit

342 Aluminum Tubing and Pipe

Complete catalog on aluminum tubing and pipe includes information on sizes and analyses produced, tolerances and physical properties, engineering data and temper designations, etc.—C. A. Roberts Co.

343 Armored Instrument Tubing Bundles

Brochure 759 describes Dekoron "Moore-Loc" armored bundles with metal or plastic tubes, modified square lock metal armor with or without plastic sheathing overall.—Samuel Moore & Co., Dekoron Products Div.

• *See the front cover of this Trade Literature Supplement to Heating, Piping & Air Conditioning for the index by products to these listings.*

344 Brass and Copper Tube and Pipe

Catalog is useful guide for heating, refrigeration, air conditioning, plumbing and architectural specifications and contains detailed data on copper water tube, drainage tube, commercial brass and copper tube, copper refrigeration tube, integral finned tube and precision small gage seamless tube. Included is information and technical data on red brass, copper and threadless pipe.—Reading Tube Co.

345 Brass Pipe, Copper Tube and Fittings

Publication B-1 contains general information, engineering data and installation procedures for brass pipe and copper tube in heating, refrigeration, air conditioning, and plumbing applications.—Anaconda American Brass Co.

346 Building Piping Systems

Thirty-two page bulletin on "Piping for Permanence" describes building piping systems and has sections on heating and plumbing systems and miscellaneous piping equipment. A special section spells out water and water problems, essentials of water analysis and gives interpretation of the analysis. Requisites of a piping material are discussed.—A.M. Byers Co.

347 Bundled Metal Instrument Tubing

Brochure L-3199A describes parallel construction Dekoron "Metl-Cor" bundled metal tubing with number-coded tubes and polyethylene sheathing.—Samuel Moore & Co., Dekoron Products Div.

348 Bundled Plastic Instrument Tubing

Brochure L-2621A describes parallel construction Dekoron "Poly-Cor" bundled plastic tubing with number-coded tubes and polyvinyl chloride sheathing.—Samuel Moore & Co., Dekoron Products Div.

349 Carbon Steel Tubing for Pressure Uses

Four page booklet TB 142B contains information on seamless and welded carbon steel tubing for pressure uses. Includes condensed data on mechanical and physical properties, hot and cold working operation, and fabricating procedures.—Babcock & Wilcox Co., Tubular Products Div.

350 Conduit

Bulletin 485 on "Spang" conduit and "Spang-Gleam EMT" describes their advantages, applications, manufacturing and quality control methods. Technical section contains complete product specifications, plus many useful charts such as "Properties of Copper Conductors".—The National Supply Co.

351 Copper, Brass, Aluminum Tube

Brochure entitled "The Measure of Tubemanship" describes facilities for producing seamless copper, brass and aluminum tube, and extruded aluminum shapes. It stresses how quality is built into all products and how the company is noted for creating new ideas and products for the industry.—Wolverine Tube, Div. of Calumet & Hecla, Inc.

352 Copper and Brass Products

Thirty-two page stock list catalog lists sizes of sheet, roll, strip, rod, wire, tubing, pipe, roofing materials and other related copper and brass products, with applicable gauge and weight data.—C. G. Hussey Co. (Div. of Copper Range Co.)

353 Copper Tube Mill Products

Condensed four page buyers' guide listing copper tube mill products for heating, air conditioning and plumbing covers types, sizes and color coding. Lists branch offices and location of mill depot stocks. Sales 100 percent through wholesalers.—Scovill Mfg. Co.

354 Corrosion Resistant Pipe

Price list L covers Duriron pipe, a high silicon iron alloy that is corrosion resistant to practically all commonly used process chemicals. It is used extensively in construction of acidproof waste lines. Bell and spigot sizes 1½ to 15 in. Fittings and caulking available.—The Duriron Co., Inc.

355 Corrosion Resistant Pipe and Tubing

Catalog describes analyses and grades of tubing and pipe available in the following size range: Pipe—2½ to 30 in. IPS in Schedules 20 through 160; 5 to 30 in. IPS in Schedules 5 and 10. Tubing—3 to 5 in. OD with walls 0.154 to 0.375 in.; 5 to 48 in. OD with walls 0.050 to 1 in. Engineering data and tables are also included.—C. A. Roberts Co.

356 Corrugated Metal Pipe

Handbook WC-233 describes complete Wheeling line of galvanized corrugated metal pipe and accessories with tables, graphs and technical illustrations. Special emphasis on applications requiring the use of pipe arch, perforated, bituminous, and nestable type metal culverts. Advantages such as flexibility, durability, transportation, installation and economy are discussed.—Wheeling Corrugating Co.

357 Electrical Conduit

Twenty page folder DEK-3 thoroughly covers plastic armored electrical conduit, "Dekoron-Coated" E.M.T. and rigid steel conduit. Engineering data chart gives corrosion resistance, mechanical and electrical properties, along with photographs showing details of the ease of installation. Complete installation instructions, bending procedure, and advantages, are included.—Republic Steel Corp., Steel and Tubes Div.

358 Expanded Polystyrene Insulation

Eight page brochure discusses "Uni-Crest" expanded polystyrene insulating material. Product is described, its physical properties listed, standard dimensions are given, and thicknesses for a wide range of temperature conditions are recommended. Photos and drawings illustrate various uses, and simplified techniques of installation and finishing are discussed.—United Cork Companies, Uni-Crest Div.

359 Flexible Connectors

Sixteen page bulletin TC-101 describes flexible connectors with core of "Teflon," stainless steel braid covering. Used for conveying hydraulics, pneumatics, chemicals, steam and as conduit. Outline drawings and specifications on standard assemblies included.—Anaconda Metal Hose Div., Anaconda American Brass Co.

360 Flexible Rubber Pipe

Full-faced type F flanged flexible rubber pipe for air conditioning applications described in new bulletin 580. Pipe sizes, standard lengths, pressure and vacuum limitations for units from 1 to 12 in. ID. Also describes type S screw cou-

pling flexible pipe; type G "Gen-Lok" pipe, and GRC rubber expanson joints.—General Rubber Corp.

361 Flexible Rubber Pipe

"Condor" flexible rubber pipe outlasts steel and is made in types to withstand pressures up to 250 psi. Installation is easy, economical and with no danger of leaky joints at pipe bends. New "Hydro-Lok" built-on flanges offer full sealing surface plus advantage of sure alignment and easy rotation of pipe to equalize wear without removing flange bolts.—Raybestos-Manhattan, Inc., Manhattan Rubber Div.

362 Heat Exchanger Tubing

Eight page brochure TB-431 introduces unique "Lectrosonic" heat exchanger tubing. Gives details of its manufacturing and testing procedure, pointing out features which make it particularly well suited for heat exchanger use.—Babcock & Wilcox Co., Tubular Products Div.

363 Ice Skating Rink Data

Thirty-two page bulletin on construction and maintenance of ice skating rinks discusses ice rink corrosion problems, maintenance, reviews service records, and spells out difference between open and closed (permanent) type rinks. Illustrates the service life of wrought iron and other ferrous piping material.—A. M. Byers Co.

364 Manual on Non-Corrosive Drainline

Engineering catalog gives all necessary information on "Vulcathene" polyethylene non-corrosive drainline systems which include fittings, sinks, traps, pipe, etc. Contains section on "Polyfusion" method of joining "Vulcathene" pipe and fittings. Describes recommended uses, advantages, characteristics, layout, design and illustration.—American Vulcathene Div. of The Nalge Co., Inc.

365 Metal Framing Handbook

Catalog 710 entitled "Unistrut Metal Framing Construction and Maintenance Handbook" contains complete information for the use of Unistrut in framing, supporting and attachment applications in the heating, piping and air conditioning field.—Unistrut Products Co.

366 Pipe for Plant Fire Lines

Eight page illustrated brochure TR-253A gives specific information on "Transite" pipe for plant fire lines, its properties, acceptance and installation procedures. Included is large diagram of typical industrial fire protection system, data for design engineers and guide specifications.—Johns-Manville.

367 Pipe for Storm Water Drainage

Ten page folder TR-252A describing, illustrating "Transite" asbestos-cement pipe for storm water drainage and storm sewer systems for control of rain from roof level to outfall. Covers economic advantages. Contains job photographs, system diagrams, information about "Transite" fittings available to complete installations. Also design data, guide specifications.—Johns-Manville.

368 Pipe, Tubing for High Temperature

Six page brochure T 467 contains information on 15 steels widely used in high temperature service. Include data on tensile properties, thermal conductivity and expansion, creep strength, oxidation resistance and other such mechanical and physical properties.—Babcock & Wilcox Co., Tubular Products Div.

369 Plastic Pipe

Adv. 965 provide complete information on Republic semi-rigid SRK plastic pipe; outlines its advantages, giving special emphasis and detailed information on ease of joining; includes complete technical data on pipe and fittings. Among the many uses described are water service, drain lines, and vent pipes for sewers and plumbing fixtures.—Republic Steel Corp.

370 Plastic Pipe, Fittings, Valves

Sixteen page illustrated booklet contains complete information on the use of "Van-Cor 1" and "Van-Cor 2," chemical resistant, normal and high (respectively) impact, unplasticized polyvinyl chloride for pipe, fittings and valves. Contains accurate schedule charts, flow charts and other information.— The Colonial Plastics Mfg. Co., Van Dorn Iron Works.

371 Plastic Pipe, Fittings and Valves

Sixteen page catalog 380 on "Uscolite" light weight, corrosion resistant thermoplastic pipe, fittings and valves recommended for corrosive chemicals, purified water, solutions sensitive to contamination. Information on applications, advantages, physical properties, corrosion resistance and installation is given. Pipe, screw fittings, socket fittings, valves, sheet, slab and rod data is included.—Mechanical Goods Div., United States Rubber Co.

372 Polyethylene Pipe

Fourteen page bulletin 29 describes National polyethylene pipe and explains its properties, application, chemical resistance, temperature and pressure limitations, and gives installation instructions.—National Tube Div., United States Steel Corp.

373 Presealed Conduit

Presealed Porter-Hayden conduit for underground piping that is non-corrosive, watertight, and immune to electrolysis is available including all necessary elbows, expansion loops, anchors, etc. The outer casing, fittings, and all internal pipe supports are asbestos cement. Designed for severe ground water conditions.—H. W. Porter & Co., Inc.

374 PVC Drain Pipe

Four page folder contains complete data on the application of "Tuftite," polyvinyl chloride plastic sewer and drain pipe. Illustrates where pipe

can be used and installation instructions, sizes and dimensions and general information are given.—The Colonial Plastics Mfg. Co., Van Dorn Iron Works.

375 PVC Pipe

Forty page illustrated bulletin 24 gives comprehensive discussion about normal impact and high impact polyvinyl chloride as a piping material with respect to their properties, chemical resistance, application, temperature and pressure limitations, and installation procedures.—National Tube Div., United States Steel Corp.

376 Radiant Heating and Snow Melting

Sixty-eight page illustrated bulletin 19 gives practical discussion of radiant heating and snow melting, including heat losses, temperature studies, design data, questions and answers, illustrations of methods, of floor and ceiling installations, coil patterns, heat transmission.—National Tube Div., United States Steel Corp.

377 Radiant Panel Heating with Steel Pipe

A 48 page booklet describing radiant panel heating and giving information on design and suggestions for laying out and installing steel pipe for such systems. Contains questions, answers.—Committee of Steel Pipe Producers.

378 Snow Melting Information

Thirty-six page bulletin on wrought iron for snow melting systems gives snow melting information and discusses typical installations, advantages, design data, fabrication, controls, auxiliary units, paving design, and fill and operating costs. Company was a pioneer in snow melting and radiant heating systems.—A. M. Byers Co.

379 Stainless Steel Tubing, Pipe

Sixty page book STP-1 gives complete information on "Electrunite Enduro" stainless steel tubing and pipe, describes manufacturing processes and applications. Included is design data, corrosion resistance tables, fabricating helps and specifications. Photographs illustrate manufacturing and use.—Republic Steel Corp., Steel and Tubes Div.

380 Steel Couplings and Pipe

New bulletin gives sizes, lengths, threads, weights and carton content of Wheatland steel pipe couplings plus complete specifications on Wheatland steel pipe, including standard, extra strong, double extra strong and structural pipe. Illustrated, file-size bulletin printed in two colors for easy reference.—Wheatland Tube Co.

381 Steel Pipe

Advantages and applications of Republic steel pipe, both continuous butt weld and electric resistance weld, are presented in Adv. 1081, which includes data on dimensions, weights, test pressures. Installations for such uses as waste, vent and drain lines, radiant heating, snow melting, fire protection systems and structural applications described.—Republic Steel Corp.

382 Steel Pipe

Booklet tells complete story of why Wheeling steel pipe is easy to use, hard to abuse, how it is made, its advantages, weights, dimensions, where it can be used, test pressures, etc. Included are photographs and technical data, tables and other buying information.—Wheeling Steel Corp.

383 Steel Pipe Data and Specifications

Forty page handbook of tubular products, 393-B, contains dimensions, weights, test pressures and specifications for Bethlehem continuous buttweld and electric resistance weld steel pipe. Standard and tentative specfiications for welded and seamless steel pipe are also included.—Bethlehem Steel Co.

384 Steel Pipe Data, Specifications

Twenty page bulletin 509 describes the quality controlled manufacture of "Spang" pipe, giving case histories and telling how it helped get the job done easier, faster and more economically in different types of installations. Includes section on specifications for standard pipe.—The National Supply Co.

385 Steel Pipe Snow Melting and Ice Removal

A 32 page booklet covering the use of steel pipe for snow melting and ice removal installations. It contains design information and discusses good installation practices. It is well illustrated and carries a question and answer section.—Committee of Steel Pipe Producers.

386 Tile Conduit

Field erected "Therm-O-Tile" tile conduit of terra cotta tile and masonry materials which give it exceptionally long life in normal ground conditions is of extra strength and durability for underground piping. Built up on a concrete slab, it has cast iron internal pipe supports, anchors and guides.—H. W. Porter & Co., Inc.

387 Tube and Pipe

"Revere Tube and Pipe for General Construction" covers the advantages and uses of copper water tube, DWV and "Dryseal" copper tube, red brass and copper pipe.—Revere Copper and Brass Inc.

388 Tubing, Extruded Shapes

Brochure entitled "Statement of Scope" outlines copper, brass and aluminum products produced by Wolverine Tube. Included are the alloys in which tubing is produced, composition, tube size range, types of products, the markets they serve, location of sales offices.—Wolverine Tube, Div. of Calumet & Hecla, Inc.

389 Vinyl Compounds for Pipe, Fittings

Illustrated bulletin describes properties and uses of normal and high impact rigid "Geon" vinyl compounds 8700-A and 8750 used to manufacture pipe and pipe fittings, conduit and channeling.—B. F. Goodrich Chemical Co.

Piping Specialties, Steam Traps, Expansion Joints, Pipe Hangers, Etc.

390 Backing Rings for Welding

Backing rings for use in welding pipe, valves and fittings are available in nearly every weldable material — ferrous and non-ferrous. Commercial type rings and machined rings made to customer specifications.—Robvon Backing Ring Co.

391 Ball Joints for Thermal Expansion

Eight page bulletin 31 illustrates the use of ball joints for connections to boilers, burners, etc., where thermal expansion and/or contraction create piping problems. Line drawings, dimension tables and photographs are included to describe basic piping arrangements adaptable to almost any piping application.—Barco Mfg. Co.

392 Bellows Expansion Joint

Twenty-four page bellows expansion joint catalog introduces and explains new design concept, assured cyclic life, that permits user to specify requirements in accord with actual service conditions without hidden safety margins. Gives complete specification and rating data, including table of cyclic conversion factors for partial traverses.—Tube Turns, Div. of Chemetron Corp.

393 Centrifugal Blowdown Separator

Wilson centrifgual blowdown separator, described in bulletin 30, is the answer to safe, economical boiler blowdown. It is used in place of a conventional blowdown tank or basin.—Wilson Engineering Corp.

394 Check Valves

New 16 page catalog 162 describes "Streamflow" center guided check valves in sizes 1 through 20 in. for pressures from 125 through 2500 lb. Available in cast iron, cast steel, stainless, bronze, aluminum and other alloys. Features described and illustrated, specifications and dimensions tabulated.—Miller Valve Co., Inc.

395 Dry Ribbon Pipe Joint Sealant

Folder describes uses, applications and advantages of new type dry ribbon dope thread pipe joint sealant.—Permacel.

396 Expansion Absorbers for Small Pipe

Four page bulletin illustrates and describes expansion absorbers for use in compensating for expansion of small diameter pipe used in domestic and industrial heating and utility lines. —Badger Mfg. Co.

397 Expansion Compensators

Bulletin 205 describes new high pressure expansion compensators in stainless steel and bronze. Designed to replace previous methods, such as slip joints, swing joints, pipe loops, or bends; units available for pressures to 175 psig, temperatures from −60 to 250 F, with 1¾ in. compression and ¼ in. extension.—Flexonics Corp. (A Subsidiary of Calumet & Hecla, Inc.)

398 Expansion Joint Design Guide

Forty page expansion joint Design Guide 222 covers engineering application and selection data. A discussion of the various types of expansion joints on the market, types of pipe line motion solved by expansion joints, expansion joint design considerations, installation instructions, and selection data is included in publication.— Flexonics Corp. (A Subsidiary of Calumet & Hecla, Inc.)

399 Expansion Joints

Six page bulletin on S-R expansion joints serves as a guide to making inquiries for specific applications. Illustrates and describes information relating to temperature and pressure ratings, flanges, liners, covers, etc.—Badger Mfg. Co.

400 Expansion Joints

Twenty-eight page catalog 758 on rubber expansion joints to prevent stresses due to expansion and contraction, insulate against the transfer of vibration and noise, and compensate for misalignment. Function, applications, advantages, features described and data on spool type, rectangular type, light weight type, and belt type are given.—Mechanical Goods Div., United States Rubber Co.

401 Expansion Joints

Bulletin EJ-1917 describes complete line of "Gun-Pakt" slip-type design expansion joints for steam or high temperature water lines. "Gun-Pakt" feature permits adding of packing while joint is under full steam pressure. Joints require only minimum maintenance.—Yarnall-Waring Co.

402 Expansion Joints

"Ram-Pak" new design slip type expansion joints give five advantages: one point lubrication, lubricant dispersion ring for uniform lubrication of packing, removable construction of packing chamber permits removing packing without removing joint from line, rugged outward limit stop provided by internal guide and support base conforms to ASA standards.—Yuba Consolidated Industries, Inc.

403 Expansion Joints

Seventy-two page catalog 56 covers the design, manufacture, application of packless corrugated expansion joints. New self equalizing, duo equal-

izing, and high pressure toroidal expansion joints, and nine other types are covered. Tables and charts give complete engineering specifications; a useful selection chart tells how to choose the right joint for given set of conditions.—Zallea Brothers.

404 45 Deg Welding Laterals

Allied 45 deg welding lateral joints for installation of "Y" sections in pipe are precision machine cut for perfect fit-up, resulting in uniform strength. Made in any material, with certification if desired.—Allied Piping Products Co., Inc.

405 Flexible Ball Joints

New catalog 250 covers the complete line of threaded, flanged and welding end flexible ball joints primarily used to allow for thermal expansion and/or contraction in piping. Included in catalog are dimensions, temperature and pressure ratings, and styles available.—Barco Mfg. Co.

406 Flexible Pipe Connectors

Engineering data and specifications brochure on "Allflex" flexible pipe connectors for pumps, air conditioning equipment, finned tube radiators, and pipe line connections subject to vibration, expansion, and all flexation problems. Tabular data, diagrams, and installation photos show best methods to overcome these problems. Available in stainless, bronze, monel, and steel.—Allied Metal Hose Co.

407 Flexible Rubber Expansion Joints

Six page brochure describes hand fabricated GRC rubber expansion joints and flexible rubber pipe. Mechanical properties, dimensions, pressure and movement limitations for flanged, spool-type expansion joints from 1 to 72 in. Lists applications of standard, reducing, filled arch and lined expansion joints for pressure, vacuum, pressure-vacuum service.—General Rubber Corp.

408 Manual on Non-Corrosive Drainline

Engineering catalog gives all necessary information on "Vulcathene" polyethylene non-corrosive drainline systems which include fittings, sinks, traps, pipe, etc. Contains section on "Polyfusion" method of joining "Vulcathene" pipe and fittings. Describes recommended uses, advantages, characteristics, layout, design and illustration.—American Vulcathene Div. of The Nalge Co., Inc.

409 Metal Framing Handbook

Catalog 710 entitled "Unistrut Metal Framing Construction and Maintenance Handbook" contains complete information for the use of Unistrut in framing, supporting and attachment applications in the heating, piping and air conditioning field.—Unistrut Products Co.

410 Metal Hose Design Guide

New metal hose design guide, catalog 225, covers application and selection of metal hose. Various end fittings are illustrated and described.—Flexonics Corp. (A Subsidiary of Calumet & Hecla, Inc.)

411 Metal Hose for Diesel Installations

Engineering data and specification brochure on metal hose for diesel applications. Charts and diagrams illustrate best way to handle flexation and vibration problems in engine exhaust, air intake and oil lines, water lines, etc. Typical installations are diagrammed, such as 90 deg bends, lateral and vertical offset, expansion and contraction, etc.—Allied Metal Hose Co.

412 Packless Expansion Joints

Catalog 65-C offers permanent solution to piping expansion problems with expansion joints using seamless, multi-ply Sylphon bellows in copper, monel or stainless steel for service on steam, water, etc. Pressures to 150 psig, sizes ¾ to 6 in., traverse to 4 in. All styles shielded and internally guided.—Fulton Sylphon Div., Robertshaw-Fulton Controls Co.

413 Pipe Hangers and Supports

Catalog PH58, 128 pages, shows illustrations, sizes, weights, capacities for rigid, adjustable, variable spring and constant support hangers; clamps, rolls, clevises, screw eyes and clips; flanges, rings, brackets, concrete inserts for supporting piping. Whether you're hanging 55 tons of main steam or ¼ in. copper tubing, what you need is shown.—Grinnell Co., Inc.

414 Power and Process Piping

New 24 page bulletin 60-B features facilities and procedures for the fabrication and erection of power piping systems and industrial process piping. Profusely illustrated with photographs of actual installations and equipment for producing carbon and alloy steel piping in all sizes.—Midwest Piping Co., Inc.

415 Purifier for Air, Gas, Steam

Bulletin 503 describes types LC and LCR line of "Hi-eF" purifiers for removal of moisture and dirt from air, gas and steam applications. Contains features, specifications and recommended installation for efficient trouble-free operation.—The V. D. Anderson Co.

416 Remote Operation of Valves

For those concerned with valves and piping, bulletin sheet details Babbitt adjustable sprocket rim with chain giude, a simple device for remote operation of overhead or otherwise out-of-reach valves. Gives price list, ordering directions and cites accident reduction, waste prevention and simplification of piping layout.—Babbitt Steam Specialty Co.

417 Rubber Expansion Joints

Catalog 58-B describes and illustrates the various types of rubber expansion jonts, with additional technical data and suggestions for proper installation and maintenance, etc.—Goodall Rubber Co.

418 Rubber Expansion Joints

"R/M" rubber expansion joints absorb pipe movement and respond to the slightest pressure, thereby preventing stress and strain on pipe and fittings that may be trouble-makers in ventilating and air conditioning systems. They also insulate components against destructive vibration and noise while compensating for misalignment. —Raybestos-Manhattan, Inc., Manhattan Rubber Div.

419 Self-Aligning Swivel Joints

Twelve page catalog 265 contains complete information on standard series 600 and 850 self-aligning swivel joints for connections to burners, etc. Includes dimension and pressure tables and photos to illustrate various applications where self-aligning swivel joints are being successfully used.—Barco Mfg. Co.

420 Shaped Nipples

Allied shaped nipples are short lengths of pipe cut with contour on one end to mate snugly against the run pipe for fabrication of tee and lateral joints, thereby reducing cost of construction of pipe joints. Available in plain bevelled ends for welding in sizes up to 36 in. and also in threaded ends in sizes up to 4 in.—Allied Piping Products Co., Inc.

421 Stainless Steel Bellows Data

Comprehensive catalog which includes application and engineering data on laminated stainless steel bellows. Included is data on expansion compensators, expansion joints, vibration absorbers, flexible connectors and pipe guides.—The U. S. Flexible Metallic Tubing Co., Keflex Mfg. Div.

422 Stainless Steel Hose

Engineering data, specifications on "Allflex" stainless steel hose from ¼ through 16 in. sizes given in data sheet SSDS562. Engineering information and data on pressure, flexibility, applications, etc. Threaded and flanged end fitting connections. Applications include vibration taming, expansion compensation, misalignment correction, etc. Also available in monel, bronze, carbon steel.—Allied Metal Hose Co.

423 Stainless Tubing for Expansion Problems

Four page bulletin AX-97 describes Anaconda A-X tubing, a lightweight stainless steel tubing for expansion problems that handle axial, radial, dual radial and shear movement while conveying large volumes of liquids or gases. Outline drawings, specifications and typical assemblies shown.—Anaconda Metal Hose Div., Anaconda American Brass Co.

424 Steam Condensate Meter

Cadillac condensate rotary meter measures steam condensate in atmospheric or vacuum systems and has high accuracy from rated capacities down to zero. This meter registers to ten million pounds, is inexpensive to maintain, is known for long life and comes in sizes from 250 to 12,000 lb per hr.—Central Station Steam Co.

425 Steam Trap Book

Forty-eight page steam trap manual and catalog includes complete data on open float and thermostatic traps for preheat and reheat coils, converters, etc., standard steam traps for all pressures, pipe strainers to 6 in. in steel and high tensile iron. Contains data on trap selection, installation, testing, maintenance.—Armstrong Machine Works.

426 Steam Trap, Strainer and Valve

Bulletin T-130 describes new No. 130 impulse steam trap that combines in one small, inexpensive unit a steam trap, strainer and blow valve. Simplifies piping hook-ups, eliminates up to six usual connections with their necessary fittings. Includes capacities, weights, dimensions and prices.—Yarnall-Waring Co.

427 Steam Traps

Bulletin 260 describes "Heat Kwik" combination "Super-Silvertop" steam traps for quick heating up of steam units. Low trap capacity factor — never more than 2 to 1 — provides true trap economy. Bulletin contains complete specifications and capacities.—The V. D. Anderson Co.

428 Steam Traps

Catalog FE-310 provides detailed information about complete line of low cost bi-metal thermostatic and float thermostatic steam traps available in wide variety of pressure ranges, body patterns, sizes and connections. These new traps have indestructible stainless steel bi-metal thermal element.—MIL Div., Farris Engineering Corp.

429 Steam Traps

"Sterlco" float and thermostatic traps and thermostatic radiator traps, both equipped with the "Sterlco" vacuum thermostat, described in bulletin 102-202. Construction enables traps, if damaged, to fail in closed position. Cold radiation indicates trap needs attention, reducing maintenance problems. All thermostatic elements external. Built for pressures to 100 psig. —Sterling, Inc.

430 Temperature Regulators

Bulletin 560 illustrates and describes type T direct acting and type AT pilot operated self-contained temperature regulator, also combination pressure and temperature regulators, types PTT, PTS and PTM available in either bronze or semi-steel body with stainless steel pilot valve, main valve and seat.—O. C. Keckley Co.

431 Thermostatic Radiator Valves

Thermostatic radiator valves to provide individual room or area temperature control on two pipe steam or hot water systems described in "Thermotrol" bulletin 501. Completely self contained, no external power source. Ideal for modernizing and inexpensive control systems for new construction. Sizes are ½, ¾ and 1 in., in all body paterns.—Sterling, Inc.

432 Thermostatic Steam Traps

Bulletin 257 contains complete specifications and capacities for the "Quik-Flex" thermostatic steam trap. Describes operation and uses, along with recommended installation for this unique freeze-proof trap.—The V. D. Anderson Co.

433 Thermostatic Steam Traps

Bulletin describes Riggio bronze body, angle or straight through, ½ to 1 in. thermostatic steam traps and semi-steel body, angle or straight through, ½ to 2 in., for steam pressures from vacuum to 250 lb psi, temperature 450 F, without changing valves, seats. Bellows of phospher bronze or stainless.—Frank D. Riggio Co., Inc.

434 Traps, Regulators, Specialties

Twelve page condensed catalog illustrates and describes complete line of steam traps, temperature regulators and heating specialties.—Sarco Co., Inc.

435 Universal Pipe Hanger Rings

Bulletin AG-5 covers Auto-Grip universal pipe hanger rings for process, sprinkler, electrical and plumbing piping. Low in-place cost — simple patented insert makes installation easy, fast, without tools. Zinc or copper plated in sizes ½ through 8 in. stainless steel, solid copper are available on special order.—Auto-Grip Div., Automatic Sprinkler Corp. of America.

436 Vibrating Earth Borer

Form ACI-59 describes new gas engine "mole" that bores holes under roads, sidewalks and driveways. Tool eliminates breaking, underexcavating and resurfacing.—Remington Arms Co., Inc.

Pumps & Pumping Equipment

437 Centrifugal Motor-Pump Units

Form 70022-A covers K line of centrifugal motor pumps, packaged for off-the-shelf delivery in sizes from 1/3 through 25 hp to suit conditions up to 190 ft total head, deliveries to 775 gpm. All these units incorporate non-overloading impellers fitted to the motor hp of the unit. —Ingersoll-Rand Co.

438 Centrifugal Pumps

Buffalo centrifugal pumps are designed to handle most liquids and slurries under a variety of conditions. Range of sizes and capacities in cast iron, steel, alloys and specialized coatings, including rubber lined.—Buffalo Forge Co., Buffalo Pumps Div.

439 Centrifugal and Turbine Type Pumps

Four page condensed bulletin illustrates and describes centrifugal and "Apco" turbine type pumps, single and multiple stage, flexible and close coupled, horizontal and vertical. Includes description, features, typical applications, capacity and head range for each type of pump. Capacities 1 to 9000 gpm and heads to 600 ft.—Aurora Pump Div., The New York Air Brake Co.

440 Condensation Pumps

The 4100-4200 series condensation pumps for low pressure systems up to 15,000 sq ft EDR are described in bulletin 700. Efficient, non-overloading centrifugal pumps for quiet operation. Three basic tank sizes for close adjustment to boiler water level. Steel or cast iron receivers. Built in simplex or duplex models with several different control systems are described.—Sterling, Inc.

441 Corrosion Resistant Pump Selection

Twenty page selection manual CE-55 for "Ace" corrosion resistant pumps describes four types available (solid hard rubber, centrifugal; hard rubber lined, centrifugal, cast iron; solid hard rubber, displacement type, with flexible neoprene impeller; and solid hard rubber, rotary gear). Tables give selection, other information. —American Hard Rubber Co., Div. of Amerace Corp.

442 End Suction Centrifugal Pumps

Bulletin 107 describes and supplies layout dimensions for end suction, flexible coupled centrifugal pumps suitable for hot water heating systems. Packed stuffing box with lantern ring features external seal tube convertible from discharge water supply to fresh water flush or grease sealing. Capacities to 900 gpm; heads to 275 ft.—Chicago Pump Co.

443 End Suction Centrifugal Pumps

Bulletin 500 describes single stage, end suction centrifugal pumps having a virtually unlimited application and providing economical, efficient pumping performance to meet a great variety of pumping requirements. Compact and easy to maintain, they are available in 32 models with capacities from 10 to 2000 gpm.—The Weinman Pump Mfg. Co.

444 General Purpose Centrifugal Pumps

Bulletin B-2300 gives data on complete line of "Fluidyne" economical, horizontal, end suction centrifugal pumps for general purpose service in capacity range from 10 to 5500 gpm, heads to 260 ft, hp range ¼ to 150. Extremely versatile, they will handle most types of liquids in

host of diversified services.—Peerless Pumps, Hydrodynamics Div., Food Machinery and Chemical Corp.

445 General Service Pumps

Bulletin 100 covers type AC "Unipumps," which are designed to deliver efficient pressure boosting service, hot and chilled water circulation and to meet many other general purpose pumping requirements. They are available in 21 different models with output ratings from 10 to 260 gpm.—The Weinman Pump Mfg. Co.

446 High Pressure Turbine Pump

Bulletin 17-A covers high pressure turbine type pump which is designed with motor and steel receiver, completely assembled and mounted on either steel or cast iron base as desired. Pressures up to 150 lb and boilers to 600 hp.—Skidmore Corp.

447 Horizontally Split Pumps

Complete line of single and two stage, horizontally split pumps for deliveries to 4000 gpm are covered in forms 7248A, 7057-C and 7062D. —Ingersoll-Rand Co.

448 Industrial Waste and Sewage Pumps

New line of vertical centrifugal pumps described in bulletin 30 for disposal of industrial waste, solids in suspension, sewage, etc. covers capacity range 50 to 600 gpm, discharge heads to 75 ft. Available in suspended type for pit depths to 17 ft; submersible pumps for deep settings, noiseless operation.—Walter H. Eagan Co., Inc.

449 Motor Application Guide

Sixteen page application guide bulletin 270B outlines electric motors ranging in size from 1/20 to 400 hp. Includes polyphase, single phase and direct current motors. Factors to consider in motor selection are discussed along with numerous motor selection charts.—Century Electric Co.

450 Motor-Pump and Cradle Pump Lines

Forms 7093-F and 7223-B cover self-contained, compact motor and pump combinations in sizes from 1 to 100 hp with deliveries to 3200 gpm and heads to 650 ft, and cradle mounted pumps with coupled motor, engine or turbine drive.—Ingersoll-Rand Co.

451 Primary and Secondary Pumping Manual

Twenty page engineering design manual describes principle of primary and secondary pumping which materially cuts heating cost when multiple buildings or zones within a building are to be heated with circulated water. Reduces pump horsepower and also saves fuel by improving heat control.—Bell & Gossett Co.

452 Proportioning Pumps

Bulletin describes advantages of "Baco" proportioning pumps and chemical feed units and includes tabulations of capacity and pressure vs. motor horsepower. Pumps are high pressure, low capacity, reciprocating plunger types designed for application where a controlled capacity of fluid is required.—The Bird-Archer Co.

453 Pump Condensed Application Guide

Application guide APB 100.17A is designed to aid in tentative selection of pump type and capacity as a preliminary to calling in engineer for specific information on dimensions, ratings and specifications. Briefly covers Fairbanks-Morse line of pumps to meet practically every pumping requirement.—Fairbanks, Morse & Co.

454 Pump Engineering Data Bulletin

Twenty page bulletin EM-77 covers costs of electrical pumping, how to survey a deep well, methods for testing pumps, etc. Includes facts on how to figure NSPH, pump efficiency, friction, loss, etc.—Peerless Pumps, Hydrodynamics Div., Food Machinery and Chemical Corp.

455 Pump for Underground Installations

Bulletin 19-B on type UV pump. Capacities from 2000 to 40,000 sq ft EDR, discharge pressures 10 to 75 lb. Recommended for underground installations or low returns — sturdily constructed in single or duplex units. Vertical pump and motor assembly has float switch on cover plate, bolted to sump type receiver.—Skidmore Corp.

456 Pump Valve Units

Eight-page bulletin describes valve units designed to fit any reciprocating pump, old or new, and includes illustrations and descriptions of the component parts, pressure-temperature ratings, and a table of seat sizes and dimensions. Made in 17 sizes, these units meet over 300 variations in installation requirements.—Durabla Mfg. Co.

457 Pumps

Pumps for every purpose, including condensate, boiler feed, fuel oil, sump, sewage, chemical feed, centrifugal transfer and fuel oil pump and heater sets are described.—Walter H. Eagan Co., Inc.

458 Resilient Mounted Motors

Bulletin describes resilient mounted motors rated through 10 hp which are ideal for hospitals, churches, theaters, office buildings and other locations that require exceptionally quiet heating and air conditioning equipment. Gives construction details of mounting and horsepower ratings as well as motor types available with the mounting.—Wagner Electric Corp.

459 Screenless Sewage Ejector

Bulletin C-900H describes heavy duty submerged type screenless sewage ejectors that feature non-clog impeller and can be used for pumping hot and cold waste; draining boiler and elevator pits, handling boiler blow-off; sewage lift stations; disposing of drainage from

underpasses, grade separations, subways and tunnels; and pumping large solids and stringy waste.—Weil Pump Co.

460 Selection Data for Centrifugal Pumps

Bulletin B-2100 describes in detail "Aqualine" general purpose, horizontal centrifugal split case pumps for hot and cold water handling, circulation and boosting, up to 8 in. discharge sizes. Capacities to 2600 gpm; heads to 350 ft. Full dimensional data plus selection charts included. —Peerless Pumps, Hydrodynamics Div., Food Machinery and Chemical Corp.

461 Sewage Handling System

New 28 page bulletin 122-D details redesigned sewage handling system with new "Flo-Thru" strainer which handles modern high solids loadings of wet strength paper products and ground garbage without clogging or interruption. Pumps can't clog because solids never reach impeller. Eight types suitable for capacities up to 1500 gpm.—Chicago Pump Co.

462 Sewage Pumps

Bulletin SE-860 E covers submersible, heavy duty screenless raw sewage pumps with non-clog impeller used for sewage lift stations, waste from buildings, heavy duty sump pump service. Features sealed motor that cannot be damaged by dust, dirt, water. Operates completely submerged, eliminates outside pump house.—Weil Pump Co.

463 Split Case Centrifugal Pumps

Bulletin 1200 describes type L single stage, split case pumps built for high, medium or low head pumping requirements. Ideal for municipal, public building and industrial use. Chilled water or condensate circulation and liquid handling applications in paper mills, chemical plants, distilleries and refineries. Thirteen models available, 100 to 600 gpm.—The Weinman Pump Mfg. Co.

464 Suction Head Compensator

New, patented chamber which is installed at the suction side of pump contains a reservoir of water and compressed air which acts as a cushion smoothing out pulsation; and eliminates surges due to increases or decreases in the pressure. Effective in all water systems.—Cobra Pipe Supply & Coil Co.

465 Turbine Type Pumps

New 8 page bulletin illustrates and describes the latest design features of the "Apco" turbine type pumps. Also included are exploded views, selection tables, limitation charts, dimensions, construction specifications, and detailed engineering-architect specifications. Capacities range up to 150 gpm, pressures to 300 psi, and temperatures to 275 F.—Aurora Pump Div., The New York Air Brake Co.

466 Vacuum Pump

Bulletin 9-C covers vacuum pump which automatically adjusts itself to the varying conditions of the system and has capacities ranging from 5000 to 100,000 sq ft EDR. Liberal clearance between moving parts means maintained efficiency. Skidmore Corp.

467 Vertical Centrifugal Pump

Bulletin VKY-6900 describes a space saving, vertical design centrifugal pump that is all ball bearing, floor mounted, flexible coupled, and has mechanical shaft seal. Applications include hot and cold water circulating water supply booster service, condenser water circulating for air conditioning.—Weil Pump Co.

468 Vertical Non-Clogging Pumps

New descriptive bulletin 124 G illustrates the most important features of complete line of vertical enclosed shaft wet basin centrifugal sewage ejectors. Includes dimensions, selection tables, specifications. Complete range of capacities to 5000 gpm and heads to 95 ft.—Chicago Pump Co.

469 Vertical Turbine Pumps

Bulletin 14 describes the types, construction, and applications of "FloWay" vertical turbine pumps, designed in several models for a broad range of industrial usage and which have a record of proven performance in pumping every fluid, corrosive or non-corrosive, hot or cold, volatile or non-volatile. Capacities of these vertical turbine pumps range up to 4000 gpm.—Fiese & Firstenberger Mfg., Inc.

YOUR COMMENTS ARE REQUESTED

Your comments on this trade literature supplement to Heating, Piping & Air Conditioning will be most welcome, and we invite you to write us. We'd like very much to know if you find this service useful, and how we can improve upon it.

For example, are the descriptions of the catalogs, bulletins and other data arranged conveniently? Are they so classified as to be of the most value to you? Did you fail to find something you were looking for? Are the items themselves complete enough? Or too complete?

Address your remarks to Trade Literature Supplement, Heating, Piping & Air Conditioning, 6 N. Michigan Ave., Chicago 2, Ill. And thanks for your help.

Radiation, Surface & Coils

470 Baseboard and Wall-Radiation

Catalogs give complete work data on type F baseboard radiation and "Modernline" wall radiation for use in residential, commercial, industrial, institutional, educational, government and other applications. Specifications, dimensional data and ratings included.—Fedders Corp.

471 Brass and Copper Tube and Pipe

Catalog is useful guide for heating, refrigeration, air conditioning, plumbing and architectural specifications and contains detailed data on copper water tube, drainage tube, commercial brass and copper tube, copper refrigeration tube, integral finned tube and precision small gage seamless tube. Included is information and technical data on red brass, copper and threadless pipe.—Reading Tube Co.

472 Cast Iron Baseboard Moulding and Seal

Bulletin C-292 describes "Trim-Seal," a heatproof extruded neoprene moulding for cast iron baseboards which has the appearance of and replaces cove moulding. Installation procedure illustrated.—Weil-McLain Co.

473 Central Air Conditioning

Engineering catalog with illustrative and descriptive information and complete selection data on central plant conditioners, multizone conditioners, sprayed coil units, heating-ventilating units, cooling and heating coils. This catalog is notebook type and is index tabbed for easy and quick use.—Thermal Engineering Corp.

474 Fin Tube Radiation

Bulletins 1640, 1650 and 1660 cover complete line of fin tube radiation including baseboard, commercial and industrial, and sill type.—Sarco Co., Inc.

475 Finned Surface Coils

Literature describes "H&M Turbu-Flo" finned coils for cooling or heating and for use with refrigerant, chilled or hot water, or steam (both standard and non-freeze types).—Halstead & Mitchell Co.

476 Heating, Cooling, Air Conditioning

Thirty-two page catalog 160 covers radiators, heat exchangers, supercharger air coolers, industrial and oil field equipment, heating and air conditioning products. Includes a history of company and description of location, facilities and services. A presentation of nuclear heat transfer applications to meet the requirements of the atomic era is included.—Young Radiator Co.

477 Heating and Cooling Coils

Bulletin S-55 describes Aerofin smooth-fin coil construction which permits close fin spacing without excessive air resistance or turbulence, resulting in greater capacity per square foot of face area. Shows various types of coils available, with index to bulletins containing complete data and information on each available type of coil.—Aerofin Corp.

478 Heating and Cooling Coils

Bulletin HC-2 gives descriptive information about complete line of heating and cooling coils. Direct expansion, cold water, hot water, standard steam, non-freeze steam and booster coils are all described as to construction, dimensions, and basic capacities.—Bohn Aluminum & Brass Corp., Danville Div.

479 Hydronic Heating Ratings and Data

Hydronic heating ratings, data, dimensions catalog provides information on design and construction details of equipment for residential and commercial application — gas and oil fired cast iron boilers; gas and oil fired conversion burners; nonferrous and cast iron baseboard heating panels and wall-mounted convectors; cast iron radiators.—American Radiator and Standard Sanitary Corp., Plumbing and Heating Div.

480 Individual and Strip Fin Tubing

Complete line of high efficiency individual and strip fin tubing in a wide range of standard sizes for all heat transfer applications is described.—The G & O Mfg. Co.

481 Panel Grids for Radiant Heating

Publication B-6 gives full information, including engineering data and suggested layouts, for using panel grids (PG's) in ceiling or floor radiant panel heating systems. The panel grid is machine-formed, ready to install without further bending on the job.—Anaconda American Brass Co.

482 Pipe Coils and Fin Coils

Engineering data book on pipe coils and fin coils prepared especially for design engineers. This 48 page publication is a guide in the design of coils, with specific data on dimensional limitations, coil development formulas, and heat transfer factors. Numerous reference and design tables are included.—Rempe Co.

483 Radiant Heating and Cooling

"The Story of the Burgess-Manning Ceiling" for radiant panel heating and cooling, and acoustical control is given.—Burgess-Manning Co.

484 Steam Coils

Bulletin M-10 contains information on new Marlo "Evntemp" distributing steam coils for modern heating systems using modulating or two-position controls. Unique design provides even temperature throughout entire face area, even when partially throttled during light loads, with precise control.—Marlo Coil Co.

485 Steam-to-Water Convertors

New 12 page bulletin 50-1 describes the "Paracoil" series K line of steam-to-water convertors and gives capacity table from 0 to 15 psig steam. Units are for application in commercial, domestic and industrial systems employing forced circulation of hot liquids at low and high temperature.—Davis Engineering Div., Tube Reducing Corp.

486 Surface and Coil Radiation

Wilson cast aluminum radiation element, especially adaptable for high pressures and unsurpassed where ruggedness and corrosion resistance is required, has patented 45 deg directional fin feature and chamber shape. This makes high thermal efficiency possible in a more compact radiation element, resulting in savings.—Wilson Engineering Corp.

487 Three Way Functional Ceiling

Completely self-contained suspended ceiling offering radiant panel heating, radiant panel cooling and acoustic control is described.—Burgess-Manning Co.

488 Valves, Traps and Piping

Technical sales bulletin 12 contains technical information on the installation and enclosure of automatic and manual control valves, traps, and piping arrangement for 3 in. thin Shaw "Panel-Vectors."—Shaw-Perkins Mfg. Co.

489 Water Cooling Coils

Catalog 406 covers complete line of water cooling coils in four standard fin spacings for any requirement or design load. Catalog describes coil construction, offers example coil selection problems and includes a complete section on direct selection. Provides an easier, more accurate selection of water cooling coils.—McQuay, Inc.

Refrigeration Equipment for Air Conditioning

490 Absorption Chilling Systems

Catalog EM 60-2236 describes York absorption water chilling systems and how they operate. Gives diagrams and illustrations.—York Corp., Subsidiary of Borg-Warner Corp.

491 Air-to-Air Heat Pumps

Catalog DS-368A covers "Climate Changer" air-to-air heat pump for all electric heating and cooling from a single refrigeration system for either residential or commercial use. Describes typical applications, selection data, performance ratings and data, dimensions and mechanical specifications.—The Trane Co.

492 Air Conditioning, Refrigerating Equipment

Bulletin 79-A shows briefly complete line of air conditioning, refrigerating, ice making and quick freezing equipment.—Frick Co.

493 Air Cooled Condenser Manual

Engineering manual FAC-1259 describes air cooled refrigerant condensers from 2 to 120 tons. They have spun aluminum or hot dipped galvanized housing, vertical air discharge, positive condensate drainage, true counterflow, individual tube construction, are lightweight and compact.—Yuba-Aimco Div.

Nearly 750 descriptions of catalogs, bulletins and other data available to you without obligation on request are described in these pages.

494 Air Cooled Condensers

Bulletin AC-102 gives complete performance data, dimensions, and description on "H&M" air cooled condensers. There are four types covered in bulletin: horizontal air flow, vertical air flow, centrifugal fan, and residential type.—Halstead & Mitchell Co.

495 Air Cooled Condensers

Bulletin 628 covers line of AB "Aircon" horizontal and vertical air flow air cooled condensers for all air conditioning and refrigeration applications. Sections on design and construction, capacity, selection data, specifications and winter operation, etc. are included. Complete working guide to waterless air cooled condensing.—McQuay, Inc.

496 Air Cooled Condensing Units, Condensers

Eight page catalog FAC-360 describes features and gives capacity and dimension data for "Fandaire" condensers and condensing units. Nominal tonnages for condensing units are 3, 4, 5, 7½ and 10.—Yuba-Aimco Div.

497 Air Duct Thermometers

Catalog 110 covers air duct thermometers in 8, 9 and 12 in. bronze case and red reading mercury tubing, with fixed flange or union connection flange in stem lengths available to suit the requirements.—The Philadelphia Thermometer Co.

498 Brass and Copper Tube and Pipe

Catalog is useful guide for heating, refrigeration, air conditioning, plumbing and architectural specifications and contains detailed data on copper water tube, drainage tube, commercial brass and copper tube, copper refrigeration tube, integral finned tube and precision small gage seamless tube. Included is information and technical data on red brass, copper and threadless pipe.—Reading Tube Co.

499 Compound Compressors

Bulletin 220 covers "Eclipse" compound compressors built in two sizes, each with nine cylinders. Six of the cylinders handle very cold gas at low pressure, pumping it into an intercooler from where it is drawn into the three high stage cylinders.—Frick Co.

500 Condensing Units

Air and water cooled condensing units, air and water cooled condensers, "A" type evaporator coils, "H" type evaporator coils.—Welbilt Air Conditioning & Heating Corp.

501 Cooling Coils

Bulletin 11 contains complete information on Marlo cooling coils, including "Sicromatic" charts and rule permitting direct graphical coil selection in seconds. One chart provides all data for a particular application, including proper refrigerant or chilled water temperatures.—Marlo Coil Co.

502 Cooling Towers

Revised 28 page bulletin 207 covers complete line of fireproof cooling towers from 10 to 800 tons in single, factory-assembled units. Engineering drawings, capacity and performance data, selection tables, and description are given for blow-through, draw-through, centrifugal fan, and tubeaxial fan models.—Baltimore Aircoil Co., Inc.

503 Cooling Towers

Cooling towers for central station air conditioning and refrigeration service that meet optimum architectural operating and performance requirements are described in catalog.—Fluor Products Co.

504 Cooling Towers

Bulletin describes "H&M" induced draft cooling towers with propeller fans (2 to 150 tons) for outside installation and centrifugal fan (5 to 30 tons) for indoor installation or use with ductwork. Take-apart models also available.—Halstead & Mitchell Co.

505 Cooling Towers

Bulletin DFA15-60 includes specifications and other pertinent information concerning series 15 "Double-Flow Aquatower". Outstanding features of both popular DFA and industrial crossflow towers are combined in this design, which makes it ideal for both air conditioning and industrial application. — The Marley Co.

506 Cooling Towers, Air Cooled Condensers

Bulletin GA-61 covers complete line of all types and models of water cooling towers and air cooled condensers, with salient features of individual tower lines included for each category. Easy-to-read selection information on equipment for various tonnage requirements.—The Marley Co.

507 Counterflow Design Cooling Towers

Four page bulletin PC 211 on cooling towers of counterflow design, with tabulations of dimensions, nominal motor hp, pump head, and weights for redwood and steel towers. Recommended pipe sizes and float valve sizes included. —Phillips Cooling Tower Co., Inc.

508 Cross-Flow Cooling Towers

Four page bullentin DA 302 describes "Dual Airstream" cross-flow cooling towers designed for horizontal profile and minimum pumping head, and having capacities from 150 to 600 tons of refrigeration. They are available in California redwood or hot dipped galvanized framing. Ratings and dimensions tabulated. — Phillips Cooling Tower Co., Inc.

509 Direct Fired Water Chiller-Heater

Four page illustrated brochure describes new gas fired model DF-3000 direct fired, 25 ton water chiller-heating unit. Gives features, applications, specifications, dimensions and other information.—Arkla Air Conditioning Corp.

510 Dry Blower Cooling Towers

Bulletin 478 covers single cell towers furnished in eight frame sizes from 5 to 40 tons of refrigeration; multiple cell tower in eight sizes from 50 to 300 tons. All towers feature low pressure spray distribution and are hot dipped galvanized after fabrication, requiring no shop paint of any kind.—Binks Mfg. Co.

511 Evaporative Condenser Engineering Manual

Revised bulletin 143 covers theory, construction, selection, installation, ducting, refrigeration piping and capacity control of evaporative condensers. Schematic drawings illustrate evaporative condenser operation along with psychrometric and entropy diagrams. Selection diagrams are given for refrigerants 12 and 22 and ammonia under both dry and wet operation. Pipe sizing tables included.—Baltimore Aircoil Co., Inc.

512 Evaporative Condensers

New 24 page bulletin 107 covers complete line of evaporative condensers from 10 to 700 tons in single, factory-assembled units. Engineering drawings, capacity and performance data, selection tables, and description are given for blow-through, draw-through, centrifugal fan, and tubeaxial fan models. — Baltimore Aircoil Co., Inc.

• *Be sure to include your name and address when you use the reply card to request copies of these bulletins.*

513 Evaporative Condensers

Condensers for refrigeration and air conditioning installations above 10 tons described. Table for selection of condensers for ammonia in 46 sizes from 12 to 354 tons per unit, and for "Freon" in 23 sizes from 15 to 425 tons. Photographs, diagrams show construction, operation. General specifications, dimensions and weights included. — Niagara Blower Co.

514 Evaporative Condensers

Full line of Vilter evaporative condensers detailed. Twelve page bulletin includes construction features of both VXF and VSC types with data and dimensions, performance charts and typical installation photographs. Condensers are available for refrigerants 12, 22 and ammonia and are offered in capacities of from 30 through 360 nominal tons. — The Vilter Mfg. Co.

515 Evaporative Water Cooler Units

Catalog 35C9a presents specifications, selection data, ratings and dimensions on "DFW Dri-Fan" closed circuit evaporative water coolers. Units provide great savings in system maintenance cost through achievement of constant condensing temperatures and may be used with single or multiple compressor systems without creating scaling problems. — Recold Corp.

516 Expanded Polystyrene Insulation

Eight page brochure discusses "Uni-Crest" expanded polystyrene insulating material. Product is described, its physical properties listed, standard dimensions are given, and thicknesses for a wide range of temperature conditions are recommended. Photos and drawings illustrate various uses, and simplified techniques of installation and finishings are discussed.—United Cork Companies, Uni-Crest Div.

517 Fluorinated Hydrocarbon Refrigerants

General discussion of the "Freon" refrigerants, including those in common use and others still under development, is given in bulletin on properties and applications.—E. I. du Pont de Nemours & Co., "Freon" Products Div.

518 Gas Powered Air Conditioning

Air conditioning equipment, powered by gas, has been in successful operation in commercial and industrial buildings. The various refrigeration and dehumidification cycles are described with data on characteristics, application and economic considerations. For guidance of engineers, specifications are given for the various systems that are covered in this comprehensive article.—Industrial and Commercial Gas Section, American Gas Association.

519 Hermetic Packaged Liquid Chillers

Bulletin 3926 describes new series of "Versare" hermetic packaged liquid chillers that come in 11 models and which provide small capacity increments up to 60 tons. Features include compact construction, complete controls with eight pilot lights indicating normal operation or cause of emergency shutdown, and rugged protective base allowing full accessibility.—American-Standard Industrial Div.

520 Hermetic Water Chilling Systems

Catalog EM 60-2235 describes the compact hermetic turbopak for various water chilling applications, with information on system applications.—York Corp., Subsidiary of Borg-Warner Corp.

521 Induced Draft Cooling Towers

Bulletins WT-501 and WT-509 covers "Watertemp" induced draft cooling towers furnished in 17 frame sizes, capacity range 5 to 300 tons. Feature hot dipped galvanizing after fabrication and removable slide-out plastic decking exposing all interior surfaces for quick and easy cleaning.—Binks Mfg. Co.

522 Latent Heat Storage Unit

Catalog section BAE covers "Ice-Cel" accumulator unit for chilled water circulating air conditioning systems with short term, high peak load. Stores refrigeration by building ice on self-baffling vacuum plates. Reduces demand power loads through use of smaller high side equipment. Can be used as booster for under-capacity systems.—Dole Refrigerating Co.

523 Multi-Drive Compressor Units

Bulletin 775 describes new Brunner line of multiple drive compressors, 7½ through 40 hp, for industrial uses. In addition to product features, specifications are listed for refrigeration compressors, semi-hermetic, direct drive condensing units and compressors. Capacity curves are presented.—Brunner Div., Dunham-Bush, Inc.

524 Package Liquid Chillers

Bulletin RS10W describes packaged liquid chillers, 7½ through 125 tons, with either direct drive, semi-hermetic or open reciprocating compressor. Can be used for such applications as air conditioning, air washing, cooling of food products and many others.—Curtis Mfg. Co.

525 Packaged Liquid Chillers

Four page bulletin LL 323 on W series packaged liquid chillers for commercial and industrial air conditioning. Sizes 15 to 125 hp. Features described, control, condensed capacity data, and roughing-in dimensions given.—Airtemp Div., Chrysler Corp.

526 Packaged Water Chillers

Compact, lightweight, packaged chiller packs rated heat transfer capacity in smaller shell, reduces floor space, headroom, floor loadings. Length is 44 percent less, height 31 percent less, weight is cut 30 percent. Performance tested and certified under full load operating conditions. Nine models in capacities from 20 through 125 tons.—Acme Industries, Inc.

527 Precooler

Eight page bulletin DCP-60 describes manufacturer's approach to combining low wet bulb and ambient dry bulb temperatures to secure an economic balance that makes air-cooled condensing of refrigerants or fluid cooling in all localities practical. Operating and application information on the ADB precooler is covered completely.—The Marley Co.

528 Reciprocating Compressors

Complete information on Vilter reciprocating type refrigerants 12 and 22 compressors is given. Offered in capacities of from 20 hp through 200 hp, these high speed 2, 4, 6, 8, 12 and 16 cylinder machines are described in a 12 page bulletin. Construction features, dimensional data, application possibilities are included.—The Vilter Mfg. Co.

529 Reference Chart for Equipment Selection

1961 references chart lists complete line of over 195 units—28 new models—of refrigeration equipment for air conditioning for determining right unit for particular job. In four parts—unitary air conditioners, heat pumps, furnaces, evaporators and air handlers. Includes 166 air conditioning products, 32 gas and oil fired furnaces.—Typhoon Air Conditioning Div.

530 Refrigerant Flow Control

Expanded catalog 104 describes various refrigerant flow control devices and accessories such as packed and packless, shut-off, relief and check valves; driers and filter-driers—both sealed and cartridge types; strainers and indicators—both liquid and moisture-liquid types.—Henry Valve Co.

531 Refrigerant Sealer

Refrigerant sealer for tubes and liner entries is described and illustrated. Unretouched photos compare "Wat-R-Bar" with conventional sealing compounds in 45,000 high frequency freeze-thaw cycling test. Reveals new sealant's long resistance to vapor and temperature extremes.—Presstite Div., American-Marietta Co.

532 Refrigerant Thermodynamic Tables

Three 36 page tables of thermodynamic data on "Genetron" refrigerants 11, 12 and 22. Includes new thermal data based on spectroscopic measurements; also pressure-enthalpy diagrams on 11, 12, and 22.—General Chemical Div., Allied Chemical Corp.

533 Refrigerants

Four page brochure gives vapor pressures, selected physical data for "Genetron Super-Dry" refrigerants.—General Chemical Div., Allied Chemical Corp.

534 Refrigerants

Four page technical data bulletin describing physical properties and uses of "Ucon Brand" refrigerants—grades 11, 12, 22, 113 and 114. In addition, one page insert is enclosed listing product quality specifications of "Ucon" refrigerants.—Union Carbide Chemicals Co.

535 Refrigerated Purging

Twelve page guide tells how air in a refrigerating system affects efficiency; how to tell if purging is needed; comparison of manual and automatic refrigerated purging. Operation of refrigerated purger explained. Location of purge connections is discussed, as well as installation and operation. Two pages of comments by purger users.—Armstrong Machine Works.

536 Refrigeration Instruments and Valves

Catalog 76-R shows entire line of refrigeration gauges and thermometers, as well as regulating valves and solenoid valves.—Marsh Instrument Co., Div. of Colorado Oil and Gas Corp.

537 Remote Air Conditioners

New catalog gives capacity, dimensional and specification data on new line of thin remote type room air conditioners for use with hot and chilled water. Floor models measure only 8⅜ in. from front to back; ceiling models also available. Tap-wound motors with pushbutton controls are standard equipment.—Fedders Corp.

538 Sealers and Vapor Barriers

Bulletin describes sealers and vapor barriers for air conditioning and refrigeration applications which exhibit good flexibility, excellent adhesion over a wide temperature range and low odor levels. Formulations for special application requirements are manufactured to customer's orders.—Witco Chemical Co., Inc.

539 Seamless Tubing, Extruded Shapes

Eight page folder "Our Packaging to Help Customers" is designed to illustrate the ability of Wolverine Tube to devise packages particularly suitable to the customer's materials handling facilities. Method of construction of each package is described, as well as its use and total capacity.—Wolverine Tube, Div. of Calumet & Hecla Inc.

540 Solenoid Valves

Epoxy-Clad (completely waterproof) coils that eliminate any possibility of coil failure or burnout due to condensation, frost, oil, gasoline fluid spray, etc., are now available without extra cost in all standard solenoid valves featured in new J-E catalog 6 just off the press.—Jackes-Evans Mfg. Co.

541 Stud-Driver Fastening System

Form ASD-01 describes and illustrates tools, power loads, studs and related equipment for powder actuated fastening systems.—Remington Arms Co., Inc.

542 System Cleaner

Bulletin 40-10 gives detailed description of usage and installation procedure of system

cleaner for hermetic motor burn-outs and new remote installations.—Sporlan Valve Co.

543 Thermometers and Hygrometers

Twelve page catalog entitled "Especially for Refrigeration, Plumbing, Heating & Air Conditioning" shows conventional type mercury thermometers and hygrometers and dial and recording thermometers.—Moeller Instrument Co.

544 Thermostatic Expansion Valves and Controls

Catalog contains installation, application, tabular and descriptive information for sizing and selecting thermostatic expansion valves, refrigerant distributors, solenoid valves, suction line regulators, hot gas bypass valves, float switches, high side float valves, evaporator controls and reversing valves available for all refrigerants and for all types of applications.—Alco Valve Co.

Sound & Vibration Control

545 Acoustical Panels

Bulletin 47 illustrates and describes Diamond perforated metal lay-in panels for modern acoustical ceilings and shows typical installations. All Diamond acoustical panels meet Federal specifications for incombustibility and have a glare-free baked-on finish which is easily washed and is not affected by moisture or any probable change in temperature.—Diamond Mfg. Co.

546 Damping Compound

Bulletin K17C covers "Vibrodamper," a new viscoelastic material which reduces structurally borne noise and vibration. Provides vibration decay rate of 35-55 db. is resistant to alkali, grease, gasoline and aliphatic oils, is unaffected by ozone or sunlight, and dries to smooth, attractive finish. Nontoxic and nonflammable.—The Korfund Co. Inc.

547 Duct Silencers

Bulletin covers "Quiet-Duct" silencers in six models and 160 face dimensions for any cfm and noise reduction requirement. All units tested and rated in company's own laboratory and corroborated by tests from qualified independent laboratories.—Industrial Acoustics Co., Inc.

548 Guide to Vibration Control Specifications

Six page bulletin F2D gives information on how to write vibration isolation specifications for air conditioning and related equipment. It contains a definitive treatment of the factors involved in the selection of various isolation media commercially available and has a selector chart designed to simplify writing specifications.—The Korfund Co. Inc.

549 Hangers for Piping, Equipment

High deflection "Vibro-Hangers" eliminate vibration and noise from suspended equipment and piping by utilizing a helical steel spring as the vibration isolating medium. The springs will withstand high temperatures without permanent set, and low temperatures without losing their resilience.—The Korfund Co. Inc.

• *An index to these items classified according to manufacturers appears on page 2-2.*

550 Low Frequency Duct Silencer

Bulletin describes "Uni-Resonator" low frequency duct silencer.—Elof Hansson, Inc.

551 Noise, Vibration Control in Pipelines

New bulletin 866 describes, illustrates "Soundzorber" wire reinforced rubber pipe designed to reduce noise transmission; prevent vibration transmission; absorb water hammer in water, chemical, sewage and other liquid and semi-liquid pipe lines. Available for both 150 and 250 lb service. Either full-flanged ends or with IPT male or female fittings.—General Rubber Corp.

552 Noise and Vibration Pads

Bulletin PT-10 covers "Shear-Flex" resilient, oil resistant neoprene cross-ribbed pads that reduce noise and vibration transmission. An exclusive VM feature is alternately raised ribs that assure good gripping qualities and maximum deflection throughout the full load range of 5 to 70 lb per sq in.—Vibration Mountings, Inc.

553 Package Silencers

Bulletin on standardized package "Conic-Flow" silencers for controlling fan noise in air handling systems. Made in 18 diameters from 12 to 60 in. for both low and high pressure systems, silencers are tested and rated acoustically and for pressure drop in company's own laboratory and corroborated by independent laboratories.—Industrial Acoustics Co., Inc.

554 Prefabricated Duct Silencers

Eight page catalog 160 on "Uni-Silencer" prefabricated duct silencers that are guaranteed and bonded. Manufacturing information, acoustical information, pressure drop tables, pressure drop and air flow data, and acoustical performance are included.—Elof Hansson, Inc.

555 Roof Ventilator Silencer

Bulletin describes E H roof ventilator silencer.—Elof Hansson, Inc.

556 Silencer Selection

Bulletin describes short form selection of "Mod-U-Size" silencers, which may be grouped to-

gether on job site to suit any requirement and offer guaranteed silencing with savings up to 25 percent. Made in standard and low pressure models in five sizes. All silencers tested and rated acoustically and for pressure drop.—Industrial Acoustics Co., Inc.

557 Sound Absorbers

Sound absorbers for high velocity system fan noise attenuation designed for low static pressure loss. They have minimum cross sectional area for use in crowded equipment rooms. Sound attenuation ratings based on actual tests.—United Sheet Metal Co., Inc.

558 Sound Control Curb

"QT" sound control curb is new Jenn-Air prefabricated, self-flashing unit designed to replace conventional power exhauster curbs, and described in bulletin 601-SC. Reduces exhauster sound power at inlet 90 percent, decreases air moving efficiency only 10 percent. Noise suppression equivalent to 18 ft of lined duct 14 in. square.—Jenn-Air Products Co., Inc.

559 Sound Trap Selection

Twenty-four page selection manual on "Aircoustat" sound traps describes them and gives selection, installation and ordering information.—Koppers Co., Inc., Metal Products Div.

• *When sending your requests, please be sure to type or print your name and address clearly.*

560 Stainless Steel Bellows Data

Comprehensive catalog which includes application and engineering data on laminated stainless steel bellows. Included is data on expansion compensators, expansion joints, vibration absorbers, flexible connectors and pipe guides.—The U. S. Flexible Metallic Tubing Co., Keflex Mfg. Div.

561 Vibration Eliminators

Bulletin VE-313 contains engineering data and construction details on Anaconda vibration eliminators for absorbing vibration and dampening noise in tubing of air conditioning and refrigeration systems. Installations are shown and advantages are listed.—Anaconda Metal Hose Div., Anaconda American Brass Co.

562 Vibration Mounting Selection Guide

Four page bulletin IND-11 discusses five basic vibration mounting methods—positive and negative isolation, steel spring, rubber in shear, and pad type. Selection guide is included.—Vibration Mountings, Inc.

563 Vibration and Noise Transmission Control

Four page catalog VAC-12 designed for the air conditioning industry helps with the right solution to vibration and noise transmission problems with a complete line of mountings and materials.—Vibration Mountings, Inc.

Tools & Machines

564 Air and Electric Tools

Catalog describes and illustrates "Sioux" air and electric portable tools including air impact wrenches, nut runners, chisels, sanders, screwdrivers, drills, electric sanders, pipe threaders, polishers, valve grinding equipment drills, grinders, saws and abrasive discs. Six entirely new tools are included.—Albertson & Co., Inc.

565 Automatic Contour Cutter

Machine is designed to make straight, mitre and contour cuts on pipe without use of layouts, cams or templates. Consists of curve generating device which develops curve of intersection of joining pipes from dimensional settings. Normally equipped with oxy-acetylene torches, can be equipped with tungsten arc torch for cutting aluminum, stainless.—Steffan Mfg. Corp.

566 Automatic Hole Cutter

Machine is designed to cut holes through pipe for fabrication of pipe joints. Can cut holes perpendicular to the run pipe or at angles up to 45 deg and is equipped with oxy-acetylene torches for cutting carbon steel. Since it is of the generating type, no layout is required.—Steffan Mfg. Corp.

567 Bevel Land Grinder

Bevel land grinder uses an electric or air powered grinder to smooth pipe cuts and place the land on bevels. Leads to easier, faster, more positive alignment of pipe and to better quality welds. Available in two models, one for 6 to 12 in. pipe, the other for 14 to 30 in. pipe.—H. & M. Pipe Cutting & Beveling Machine Co.

568 Diamond Drills and Bits

Bulletin 321 introduces and explains the application of diamond drilling equipment for drilling holes or making large square openings in reinforced concrete, brick, stone, tile, etc. Equipment and bits fully described and illustrated.—E. J. Longyear Co.

569 Elevating Platform

Brochure on new "Sky Witch" work-load lift, a portable hydraulic elevating platform that puts load and workmen at correct job height. Six models are available, each with options on power, mounting and accessory equipment.—Charles Machine Works, Inc.

Nearly 750 descriptions of catalogs, bulletins and other data available, without obligation, on request are described in these pages.

570 Flexible Shaft Machines

Catalog shows machines used for grinding, sanding, polishing, buffing rotary filing. Charts are given for shaft, couplings, etc.—Remington Arms Co., Inc.

571 Hammer-In Fastening Tools

Six page catalog, B-145, illustrates complete line of tools and fasteners including "Shure-Set" light duty fastening tool which operates on "needle-in-a-coin" principle, requires no cartridge, makes every hammer blow more effective, and sets drive pins and threaded studs in concrete, masonry and building block.—Ramset Fastening System, Winchester-Western Div., Olin Mathieson Chemical Corp.

572 Light Weight Pipe Bender

Four page bulletin E-249 describes new 777 light weight segment bender for 1¼ through 4 in. steel and aluminum pipe. Weighs only 65 lb exclusive of shoes. With a few optional parts it also makes 90 deg one-shot bends in ½ through 2 in. pipe sizes. Hand or power pump operated.—Greenlee Tool Co.

573 Mechanized Hand Cutter

This machine is designed for cutting holes in tanks 16 to 72 in. diameter, and can also be used for cutting circles, straight lines and irregular shapes in flat plates. Is equipped with oxy-acetylene cutting torch.—Steffan Mfg. Corp.

574 More than 60 Timesaving Tools

Bulletin E-240 covers the more than 60 Greenlee timesaving tools, including light weight hydraulic pipe benders; hydraulic pipe pushers; portable, high pressure hydraulic power pumps; power bits; pipe bits; auger bits; chisels and allied tools.—Greenlee Tool Co.

575 Pipe Cutting and Beveling Machine

Model O machine for cutting and beveling 1½ to 4 in. pipe features fast, easy mounting and employs same split gear horseshoe principle which characterizes all other H. & M. machines. Design enables operator to place machine on continuous pieces of pipe. Completely portable, can be moved from job to job, shop to field.—H. & M. Pipe Cutting & Beveling Machine Co.

576 Pipe Cutting and Beveling Machines

Seven pipe cutting and beveling machines are available to prepare 1½ to 36 in. pipe for welding. The "Out-of-Round" accurately cuts irregularly shaped pipe. The "Shape Cutter" employs templets to cut various shapes for the fabrication of tees, ells, other designs.—H. & M. Pipe Cutting & Beveling Machine Co.

577 Pipe Tools

New 24 page illustrated price list gives complete information and prices for all "Ridgid Work-Saver" hand and power tools such as wrenches, reamers, threaders, dies, pipe and tubing cutters, flaring tools, vises, power drives, threading machines, oilers, thread cutting oil and stands.—The Ridge Tool Co.

578 Pipe Tools

Pocket size 16 page reference guide "Finger-Tip Facts" with easy to use thumb index, handy hang-up hole, reminder and order memo sheet briefly describes all popular "Ridgid" pipe tools — wrenches, threaders, reamers, dies, pipe and tubing cutters, vises, power drives, flaring tools and threading machines.—The Ridge Tool Co.

579 Portable Trenchers

Full-color brochure on "Ditch Witch", the Charles line of portable trenchers, gives specifications, photographs and information on machines covering a range of 3 to 16 in. trench widths and depths to 6 ft.—Charles Machine Works, Inc.

580 Powder Actuated Fastening Tools

Application manual B-125 details fast, efficient method of anchoring pipe hangers used in suspending various types of piping to steel and concrete. Tools and drawings are included as are specifications on sprinkler and water systems, waste lines and others.—Ramset Fastening System, Winchester-Western Div., Olin Mathieson Chemical Corp.

581 Powder Actuated Fastening Tools

Twelve page catalog, B-141, illustrates full line of "Jobmaster" powder actuated fastening tools, drive pins, threaded studs and powder charges; gives diagrams, charts and application drawings which explain in easy-to-read terms operating principles, scope, versatility, speed and accuracy in fastening with powder actuated tools.—Ramset Fastening System, Winchester-Western Div., Olin Mathieson Chemical Corp.

582 Roller for Asphalt Patches

"Hot Witch" 18 in. wide roller rolls heat into asphalt for greatest compaction and resistance to traffic wear and freeze damage. Weighing 225 lb including 20 lb L-P gas standard fuel tank, this roller uses hot or cold mix. Ideal for patches, paving medians and will work within ⅛ in. of wall or curb.—Charles Machine Works, Inc.

583 Tools for Pipefitters

Bulletin H-308 contains detailed information on the most widely used tools in the woodworking line. Of particular value to pipefitters, the booklet describes over 75 tools including power, solid-center, auger, expansive and car bits; chisels; gouges; screwdrivers, and other tools.—Greenlee Tool Co.

An engineer or contractor obviously can't find *all* the information he needs in catalogs, bulletins and manuals — but he *can* find a great deal of the information that he must have.

Unitary Air Conditioning

584 Air Conditioner Certification

Sixteen page booklet entitled "A New Assurance" describes the Certification Program for Unitary Air Conditioners initiated and administered by the ARI.—Air-Conditioning & Refrigeration Institute.

585 Air Conditioning

Eight page bulletin LL-349 gives brief descriptions, capacity and selection data for centrifugal water chillers, air handling equipment, central station air conditioning, packaged liquid chillers, radial design compressors and condensing units, cooling and heating units, fan coil units.—Airtemp Div., Chrysler Corp.

586 Air Conditioning and Drying Systems

New 16 page bulletin K-160, "Dollars Out of the Air," describes latest model C "Kathabar" air conditioning and drying systems. Used to stop condensation, speed drying and other processing operations; obtain subfreezing dewpoints; and make air sterile to hospital standards. Also covered is new "Kathabar" climate control prefabricated standard test rooms.—Surface Combustion Div. of Midland-Ross Corp.

587 Air Conditioning Industrial Plants

Four page brochure 76-4263 "Air Conditioning For Industrial Plants . . . Costly Frill or Valuable Investment?" presents the sound economic justification behind installation of air conditioning in modern industrial plants. Features graphs and actual cost figures based on a comprehensive industrial survey. Compact, easy-to-read story especially designed for busy executives.—Minneapolis-Honeywell Regulator Co.

588 Air Conditioning Manual

All data pertinent to easy, accurate selection of vertical style, fan coil, year 'round hydronic air conditioning units available to the system designer through type 20 "Remotaire" application manual. Includes complete design specifications; detailed dimensions; selection procedure, tabulated and charted capacities; motor and electrical characteristics; control descriptions.—American Radiator and Standard Sanitary Corp., Plumbing and Heating Div.

589 Air Conditioning Units

Catalog 54C9b describes performance, gives dimensional data on line of compact horizontal air handling units for air conditioning, heating and ventilating applications. Modular design offers great flexibility in location of blower discharges and of motor and coil. Available in 17 models ranging between 500 and 34,000 cfm.—Recold Corp.

590 Air Handling and Conditioning

Eight page bulletin S-61 illustrates and describes complete Clarage line of the several different types of fans and wheels, air conditioning units, air washers, power roof ventilators, unit heaters, mechanical draft equipment and unitary fan equipment available.—Clarage Fan Co.

591 Air Units

One page bulletin describes air units for any temperature from 38 to 300 deg; all humidities; reheat with steam, water or electrical elements as required. Available in sizes 2, 3, 5, 7½ and 15 tons. Units can be furnished with copper tube, steel hot galvanized, or stainless steel cooling coils.—Rempe Co.

592 Central Station Air Conditioners

Complete climate control for every area of a building is available in the Acme multi-zone central station air conditioner. One unit heats, cools, filters, humidifies, dehumidifies in any combination, singly or simultaneously. Serves up to 16 separate zones; can heat one zone while cooling another. Five sizes, 56 coil combinations.—Acme Industries, Inc.

593 Central Station Air Conditioning Unit

Bulletin AC-100 introduces a new line of "Kennard/Nelson" central station air conditioning units which feature a choice of "built-in better air"—unit, automatic, renewable media, electrostatic and combinations of filters. Possible to select complete packaged units with coils, accessories, filters, even traps without referring to separate bulletins.—American Air Filter Co., Inc.

594 Commercial Gas Air Conditioning Units

Four page illustrated brochure, "Everyone is Happier . . ," outlines the various advantages of Arkla-Servel "Sun Valley" gas air conditioning units for use by business establishments. Folder is useful as mailing piece as there is room on the back for sales message.—Arkla Air Conditioning Corp.

595 Condensers and Condensing Units

"Fandaire" air cooled condensers and condensing units introduce new circular concept. Incorporate basic principles of good heat transfer design: tapered fin construction, vertical discharge of heated air, sloping tube drainage of condensate and oil, counterflow, low pressure drop, elimination of stress and strain due to temperature change.—Yuba Consolidated Industries, Inc.

• *When sending your requests, please be sure to type or print your name and address clearly.*

596 Directory of Certified Air Conditioners

Periodically published "Directory of Certified Unitary Air Conditioners" shows model numbers and Btuh ratings of all unitary equipment certified under the ARI's Unitary Air Conditioner Certification Program.—Air-Conditioning & Refrigeration Institute.

597 Dual Purpose Air Handling Unit

Twenty-four page bulletin DD-5 describes large central station equipment for dual duct or multizone air conditioning systems complete with fans, filters, cooling and heating coils, automatic dampers, sprays, pumps, etc.—Buensod-Stacey, Inc.

598 Gas Air Conditioning Units

Six page illustrated brochure, "Go to Sun Valley . . .," describes the comfort, economy and other sales features of the Arkla-Servel "Sun Valley" gas air conditioning line. Includes specifications, dimensions and other details on the four available units for residential use.—Arkla Air Conditioning Corp.

599 Heating-Ventilating Cabinets

Bulletin UH-130 gives detailed description of cabinets, type HV for both heating and ventilating in horizontal or vertical operation and type V for ventilating only. Data includes unit arrangements, weights, dimensions, fan performance and coil ratings.—Buffalo Forge Co.

600 Large Air Handling Units

Four page form LL 399 covers AH series large air handling units, 2500 through 12,500 cfm, nominal capacities 7.5 through 50 tons. Specifications are given, and direct expansion, chilled water, and hot water coil ratings are tabulated. Dimensional data included.—Airtemp Div., Chrysler Corp.

601 Large Unit Air Conditioners

Bulletin 730 covers large unit air conditioners built in sizes of 5, 7½, 10 and 15 hp. Larger units are equipped, if desired, with a bypass damper.—Frick Co.

602 Moisture Eliminator Blades

Leaflet describes moisture eliminator blades for industrial air conditioning — SP-009 copolymer of polystyrene and SP-010 rigid polyvinyl chloride. Shows suggested assembly. Resistant to chemicals, physical attack, easily cleaned.—Southern Plastics Co.

603 Multiple Zone Units

Catalog 55C9a details specifications, ratings and dimensions on series of "Multizone" units with capacities from 1650 to 29,000 cfm, available with class II constructions for high velocity applications up to 6 in. total static pressure. Modular construction permits wide choice of arrangements, motor locations, accessories for horizontal or vertical models.—Recold Corp.

604 Package Air Conditioners

Bulletin RS10X covers package air conditioning units from 3 to 20 tons for water and air cooled applications which can be used for year 'round air conditioning. Available with steam or hot water coils.—Curtis Mfg. Co.

605 Package Air Conditioners

Self contained package air conditioners, air and water cooled, attic stowaway residential units.—Welbilt Air Conditioning & Heating Corp.

606 Packaged Air Conditioner

Twelve page manual on PAC packaged air conditioner line includes product details and cutaway illustrations, plus technical information such as specifications, ratings, piping and wiring diagrams, dimensions.—Dunham-Bush, Inc.

607 Packaged Water Chillers

Vilter "Uni-Chiller" packaged water chillers for refrigerant 22 in sizes from 25 through 125 nominal tons are described. All major components, including VMC reciprocating compressor, flooded or direct expansion chiller, condenser and control package, illustrated and described in eight page bulletin.—The Vilter Mfg. Co.

608 Reference Chart for Equipment Selection

1961 reference chart lists complete line of over 195 units — 28 new models — of refrigeration equipment for air conditioning for determining right unit for particular job. In four parts — unitary air conditioners, heat pumps, furnaces, evaporators and air handlers. Includes 166 air conditioning products, 32 gas and oil fired furnaces.—Typhoon Air Conditioning Div.

609 Remote Air Conditioners

Bulletin 35 describes "Seazonaire" remote air conditioning units for multi-room installations, available in six standard types, floor or ceiling mounted, finished cabinet or recessed, capacities from 210 to 1260 cfm. Included are construction details, specifications and installation dimensional drawings.—Marlo Coil Co.

610 Remote Air Conditioning Units

Eight page bulletin 230 gives complete dimensional and capacity information about new line of remote horizontal air conditioning units. Units can be supplied for both heating and cooling using steam, water, and direct expansion. Cooling capacities range from 2 to 15 tons.—Bohn Aluminum & Brass Corp., Danville Div.

611 Roof Heating and Cooling Unit

Four page catalog 48B1 describes versatile 48B commercial "Weathermaker", a heating and cooling unit designed to be installed on the roof of one story buildings. Completely self-contained, it consists of an air cooled refrigeration section, gas fired heating unit and fan section.—Carrier Air Conditioning Co., A Div. of Carrier Corp.

612 Roof Mounted Air Conditioning

"Atmos-Pak" roof mounted, year 'round air conditioning system, available in capacities 5 through 35 tons, complete with supply and return air distribution chamber, described in bulletin. No field assembly required.—Air Conditioning, Inc.

613 Roof Top Heating and Cooling Unit

Mammoth's YR series is completely enclosed weatherproofed "Compact-Aire" roof top heating, cooling unit for outdoor installation. Described in bulletin YR-460. Available in four sizes with Btu outputs, gas or oil, from 150,000 to 500,000. Coil space, blower capacities to handle any standard cooling equipment from 3 to 20 tons.—Mammoth Industries, Inc.

614 Unitary Air Conditioning

Catalog section 60 describes articulated units of unlimited capacities through and beyond 100,000 cfm, designed and manufactured to incorporate all the equipment necessary for a central station as required. Optional indoor or outdoor weatherproof construction.—Air & Refrigeration Corp.

Unit Heaters & Unit Ventilators

615 Cabinet Unit Heaters

Type CH cabinet unit heaters designed for economical, dependable forced air space heating when steam or hot water is used as thermal medium. Possible applications are schools, churches, hospitals, offices, stores and shops. Bulletin 351 covers general design features, unit arrangements, capacity ratings, curves, performance data, specifications.—McQuay, Inc.

616 Classroom Heating, Air Conditioning

Eight page booklet of architect sketches shows different applications of "Comfort Curtain" system for heating, ventilating and air conditioning classrooms. Shows heater rooms and heating equipment integrated into the design of schools and libraries.—Lennox Industries Inc.

617 Commercial Range Hood Ventilation

"Filtaire" commercial range hood ventilator collects grease, smoke, heat, odors from commercial ranges, fryers, etc., by range-level blower pressure. Eliminates roof fan. Self-contained unit with filter, blower, motor, cabinet. Easily installed. Grease filter efficiency 96-98.6 percent. Copper mesh prevents transmission of flame. Models for 1000, 2000, and 3000 cfm.—Morrison Products, Inc.

618 Direct Fired Gas and Oil Heaters

Four page bulletin 502 describes direct fired heaters available in eight floor mounting and eight suspended models to 550,000 Btu. Features described and illustrated, dimensions and specifications included. Dependability and fuel economy discussed.—Arkos Mfg. Co.

619 Direct Fired Make-up Air Units

Form 552-1-60 on "Champion" MA series direct fired make-up air units gives large selection of packaged, factory wire and fired units of from 8000 to 150,000 cfm, DWDI fans for quiet operation. Features in-line gas burners, 25 to 1 turndown ratio, weatherproof casing. Meets insurance underwriters requirements.—National Heater Co., Inc.

620 Dual Purpose Door Heater

Bulletin DPDH-60 describes the new Wing dual purpose door heater which automatically stops insweeping cold drafts through open shipping doors. When door closes, a damper re-positions to direct the heat along the walls for perimeter heating or into the room for space heating. Operating control is by thermostat and door switch. —L. J. Wing Mfg. Co., Div. of Aero Supply Mfg. Co.

621 Gas Fired Fresh Air Supply Heaters

Bulletin GFAS-60 describes Wing direct gas fired fresh air supply heaters of unitized construction, factory pre-wired and piped ready for installation. They are made in five sizes suited for wall or roof inlet and offer up to 50,000 cfm and 4,500,000 Btu per hr output.—L. J. Wing Mfg. Co., Div. of Aero Supply Mfg. Co., Inc.

622 Gas Fired Heaters, Duct Furnaces

General catalog SA-5900 describes the complete line of Reznor gas-fired unit heaters, duct furnaces, heavy duty heaters, blower fans and the new Reznor motorized flue exhauster. Dimensions, performance data and application suggestions are included.—Reznor Mfg. Co.

623 Gas Fired Unit Heaters

Bulletin DS-347 describes and illustrates gas fired unit heaters, propeller and blower types, and duct heaters. Provides data on performance, unit selection and installation, dimensions and mechanical specifications.—The Trane Co.

624 Gas Unit Heaters

Four page leaflet describing gas fired unit heaters — fan type, blower type, and duct furnace models. Features include aluminized or stainless steel heat exchangers guaranteed for 10 years, four-way air distribution, "Easy Balance" hangers. Twenty-four models, sizes up to 300,000 Btu.—Hastings Air Control, Inc.

Use the handy postage-paid reply card on pages 2-59 and 2-60 to request copies you want.

625 Gas Unit Heaters

Complete selection of capacities in propeller and blower models of gas unit heaters in compact, space-saving design. "Sound-rated" for applications where quietness of operation is factor.—Roberts-Gordon Appliance Corp.

626 Horizontal Direct Fired Heaters

Four page bulletin JAS 460 describes Johnson model JAS factory assembled heating units and duct heaters for oil or gas, with exclusive counterflow "Aire-tube" design in wide range of sizes 152,000 to 1,000,000 Btu for many varied applications. Standard ratings, dimensional data and standard equipment shown.—Johnson Heater Corp.

627 Horizontal Unit Heaters

Twelve page catalog 2557A describes the wide model range, high performance standards and low cost heating service provided by horizontal unit heaters. Lists detailed construction features, available accessories and several advantages of horizontal heating. Included is technical data, specifications and dimensional drawings, complete charts, tables and graphs.—Young Radiator Co.

628 Industrial Direct Fired Heaters

Two bulletins describe models AT and OG series of industrial space heaters. Gas, oil or combination fuel burners with pushbutton changeover. Outputs from 400,000 to 2,000,000 Btuh. Rugged constructions with completely enclosed burner, adaptable for space heating, ventilation, make-up air, process heating, air conditioning.—Lennox Industries Inc.

629 Schoolroom Heating, Ventilating, Cooling

Booklet describes unique, low cost method of satisfying stringent requirements for student comfort now demanded by modern school administrators.—Janitrol Heating & Air Conditioning, A Div. of Midland-Ross Corp.

630 Space Heaters

Bulletin 580-13 contains drawings and specifications for space heaters with output capacities from 200,000 to 500,000 Btu per hr. The "Paraflo" heater is used principally in medium sized industrial buildings, commercial and institutional buildings.—Dravo Corp.

631 Space Heaters

Bulletin 580-12C describes features of "Counterflo" space heaters ranging in output from 400,000 to 2,000,000 Btu per hr for a wide range of industrial applications. Drawings, specifications and other engineering data included.—Dravo Corp.

632 Space Heating with High Ceilings

"Vertiflow" catalog 2659A illustrates and fully describes how to effectively space heat buildings with high ceilings. Sixteen pages include technical data, mounting heights, spread circle diameters, unit capacities of 30 sizes, specifications, and dimensional drawings. Complete charts, tables and graphs also included.—Young Radiator Co.

633 Unit and Blast Heaters

Revised catalog GP 956-R4-1-60 describes "Grid" cast iron steam heat transfer surface unit heaters (both horizontal and down blow), blast heaters and radiators, and discusses corrosion in unit heaters. Describes and illustrates one piece contruction high test cast iron heating sections, together with air distribution charts, heating capacities, conversion tables, etc.—D. J. Murray Mfg. Co.

634 Unit Heaters Handbook

Sixteen page catalog and handbook 357 gives detailed selection information, other engineering data on complete line of steam, electric and gas unit heaters to handle every heating requirement. Includes formulas for estimating various types of heating requirements, wiring and piping diagrams, height and heat distribution data.—Ilg Electric Ventilating Co.

635 Unit Heaters

Twenty page catalog 46-106 describes three types of unit heaters for steam and hot water heating systems. Complete rating, selection and dimensional data are included along with specifications for each type.—Carrier Air Conditioning Co., A Div. of Carrier Corp.

636 Unit Heaters

Catalogs on complete line of horizontal, downblow and cabinet unit heaters for use with steam or hot water. Also complete line of gas fired models. Full working data on capacities and dimensions.—Fedders Corp.

637 Unit Heaters

Eight page bulletin UH858 on Grinnell unit heaters presents information, illustrations of gas fired and steam or hot water unit heaters for variety of applications. Sound rating recommendations for typical environments, guides for unit selection, installation, location are provided with data on two-speed motor operation, velocity nozzles, vertical delivery.—Grinnell Co., Inc.

638 Unit Heaters

Sixteen page folder describes complete line of unit heaters, available as ceiling and floor mounted, propeller and blower types.—Janitrol Heating & Air Conditioning, A Div. of Midland-Ross Corp.

639 Unit Heaters

Wilson unit heaters, available in six models in capacities 60,000 to 717,000 Btu, are described in bulletin 60. Unit heater is completely dependable in service where corrosive atmospheres are encountered. Uses directional finned radiation. —Wilson Engineering Corp.

640 Unit Heaters and Horizontal Furnaces

Specification sheet gives information on complete unit heater line ranging from 25,000 to 250,000 Btu input. Gas fired unit heaters are shipped completely assembled, pre-wired and test fired. Horizontal oil and gas fired furnaces are available in capacities from 110,000 to 350,000 Btu input.—Mueller Climatrol Div. of Worthington Corp.

641 Unit Heaters-Ventilators

Catalog DS-327A shows and describes in detail "Torrivent" large space heating and ventilating units for institutional, commercial and industrial applications. Equipped with high efficiency centrifugal fans, unit comes in horizontal, vertical and inverted floor and ceiling models. Seventeen sizes range from 20,700 to 3,846,800 Btu per hr.—The Trane Co.

Valves, Fittings & Flanges

642 Automatic Pressure Controls

Eighty four page catalog offers information on relief valves, hydronic heating valves, safety devices, pressure regulators, refrigeration controls and protective equipment. Contains capacity and spring range charts, installation and engineering information.—A. W. Cash Valve Mfg. Corp.

643 Automatic Regulating Valves

Bulletin 954 illustrates and describes complete line of automatic regulating valves for control of pressure and temperature — pressure reducing valves, float and lever valves, temperature regulators, relief valves, back pressure valves, pump governors, differential valves, etc.—Klipfel Valves, Inc.

644 Ball Valve

Two page catalog sheet 611-MF describes in detail a new ball valve. Shows cutaway views, rating, operation of valve and describes specific design features and dimensions and reports on applications and advantages.—The Lunkenheimer Co.

645 Bar Stock Valves

Catalog DH-766-B describes bar stock close control valves, precision turned from high grade bar stock metals and capable of withstanding a wide range of working temperatures and pressures; gives illustrations and dimension tables on the various styles and sizes.—R-P&C Valve Div., American Chain & Cable Co., Inc.

646 Boiler Blow-Off Valves

New eight page catalog 39-4 shows complete line of tandem blow-off valves for boilers, giving their dimensions and specifications. Covers semi-steel and cast valves in 1½, 2 and 2½ in. sizes for steam working pressures up to 600 lb. —Homestead Valve Mfg. Co.

647 Branch Connection Fittings

Bulletin TF-1 introduces "W-S Fishmouth," new way to make branch connections. Fully machined to shape from schedule 40 pipe, fits perfectly with run pipe. Sizes 2 in. and up. "W-S TeeLet," sizes ⅛ to 1½ in., designed to give low cost connections for high pressure, small branch pipe applications.—H.K. Porter Co., Inc., Forge and Fittings Div., "W-S" Fittings Works.

648 Bronze Gate Valves

Patented 200 lb bronze gate valve in which the nickel alloy seat rings can be replaced in from 7 to 10 minutes without removing valve body from the line are described in circular V-126. Simplicity of replacement is illustrated step-by-step. Valves available in rising and non-rising construction, sizes ½ through 2 in.—The Fairbanks Co.

649 Bronze Globe Valves

Circular V-525 describes "Microcontrol" bronze globe and angle valves with 500 Brinell stainless steel full plug discs and seats for 150, 200 and 300 lb services. Recommended for close control of flow — throttling — where the hardened stainless steel full plug discs and seats provide a tough but sensitive valve for this demanding service.—The Fairbanks Co.

650 Bronze Valves

Thirty-six page catalog VC-3 is devoted to low pressure and pressure rated valves, solder end and threaded, gate, globe, boiler drains, stop and stop & waste. A chart shows flow characteristics, and valve installation pointers are given. —Nibco Inc.

651 Butterfly Valves

Bulletin 583 describes "Wafer" type butterfly valves with manual or automatic control and shut-off of air, gases, steam, water, process fluids or semi-solids. Valves have full range of pressures and temperatures, save space, are easy to install, provide better flow characteristics and have low pressure drop. Metal-to-metal or rubber-seated.—W. S. Rockwell Co.

652 Check Valve Pressure Loss Tests

Pressure loss tests for a series of Williams-Hager silent check valves were conducted by Cornell University, Department of Hydraulics, School of Civil Engineering. Results in bulletin cover valves for pipe diameters ranging from 4 through 18 in.—Williams Gauge Co., Inc.

653 Check Valves

Technical bulletin CH-100-A describes a multi-duty check valve engineered for the heat pump featuring teflon seats. Will not chatter even under very low flow. Instant-acting for extremes of temperatures and pressures. Hermetically sealed. Ten million cycles at 350 psi show no appreciable wear. Range is ½ through 20 tons. —Chatleff Controls, Inc.

654 Check Valves

Eight page bulletin describes basic units which, when combined with standard pipe fittings of almost any type, form complete check valves suitable for a wide variety of services. Included are construction details, ratings, and a table of sizes and dimensions. Illustrations show use with different pipe fittings, tanks and pressure vessels.—Durabla Mfg. Co.

655 Check Valves

Circular V-63 illustrates, with over 40 pictures, bronze and iron body check valves. Information on applications, design features, available sizes for bronze swing and lift types with either screwed, flanged, solder or "Fairco-Braze" ends and for iron body swing types. Includes Underwriters' and Factory Mutual approved check valves.—The Fairbanks Co.

656 Check Valves

New 16 page catalog 162 describes "Streamflow" center guided check valves in sizes 1 through 20 in. for pressures from 125 through 2500 lb. Available in cast iron, cast steel, stainless, bronze, aluminum and other alloys. Features described and illustrated, specifications and dimensions tabulated.—Miller Valve Co., Inc.

657 Check Valves To Control Surge Pressures

Four page bulletin covers in detail silent check valves and includes technical data, specifications and installation data on two types of valves. — center guided type for service in lines from 1 through 10 in.; and globe type for lines from 3 to 24 in.—Williams Gauge Co., Inc.

658 Control Valves

Bulletin 150 explains eccentric action and exclusive features, materials, dimensions and accessories of control valves. Applications of pneumatic, hydraulic, electric actuation for throttling and on-off are given.—DeZurik Corp.

659 Controls and Components

Condensed catalog no. 58 contains pertinent information on refrigeration and air conditioning controls and components.—Sporlan Valve Co.

660 Copper Pipe and Tube Fittings

Fittings and accessories for copper pipe and tubing, solder, flanges, and flared, are the subject of 92 page catalog I. There are sections on wrought copper fittings, cast solder fittings, cast drainage fittings, flared tube fittings, flanged fittings, heating specialties.—Nibco Inc.

661 Copper Tube Fittings and Valves

Publication C-12 gives complete listing with illustrations of the wide range of wrought copper and cast brass solder type fittings for use with copper tube piping installations.—Anaconda American Brass. Co.

662 Corrosion Resistant Fittings

Twenty-four page bulletin on Speedline corrosion resistant fittings includes engineering data, details on complete line of stainless steel "long tangent" pipe fittings, ½ through 4 in., for light-wall schedules 5 and 10 process piping. Information on butt welding, socket joining and use of unique Speedline insert flange.—Speedline Fittings Div., Horace T. Potts Co.

663 Corrosion Resistant Welding Fittings

Catalog describes dimensions and analyses and gives corrosion tables for corrosion resistant welding fittings.—C. A. Roberts Co.

664 Diaphragm Valves

Grinnell-Saunders diaphragm valve catalog S-V-60, 48 pages, describes and illustrates their exceptional fittness for handling materials which are corrosive, viscous, fibrous, solids in suspension, liquids, gases and semi-fluids, under pressure or vacuum. Exclusive construction features, wide choice of body, linings and diaphragm materials; long life, simple maintenance.—Grinnell Co., Inc.

665 Eccentric Balancing Valves

Eight page bulletin 110 describes the eccentric principle under which DeZurik valves are designed. It also lists the dimensions, wide variety of materials, etc., of the manually-operated valves used on air conditioning installations. For chilled water balancing, hot water, pump shut-off, condenser and cooling tower lines and shut-off.—DeZurik Corp.

666 Eccentric Plug Valve

Bulletin AE 1059B describes new eccentric plug valve featuring minimum number of parts, is non-lubricated for little maintenance, maximum pipe opening with special elastomer-covered plug for bubble-tight sealing, no packing required, design eleminates ordinary bonnet assembly. Working pressure 150 lb; available in sizes ½ through 12 in. (larger on application). —W-K-M Div. of ACF Industries, Inc.

667 Flow Control Valves

Twenty page bulletin 280A on bronze and steel "Hancock Flocontrol" valves gives dimensions, capacities, material specifications, etc. for bronze, cast steel, and steel valves. Includes correction factors, flow charts, tables of ratings. —Manning, Maxwell & Moore, Inc.

668 Forged Flange and Fitting Specifications

Forty-eight page brochure FB 77 summarizes most commonly used ASME and ASA specifica-

tions for welding fittings and forged steel flanges. Intended as an aid in computing preliminary design requirements for pressure piping systems.—Babcock & Wilcox Co., Tubular Products Div.

669 Forged Stainless, Alloy, Carbon Fittings

Application of "W-S" high pressure (2000, 3000, 6000 lb) pipe fittings and eight types of unions described in bulletin A3-S1. Data on screw end and socket welding, ⅛ to 4 in., stainless, alloy and carbon steel fittings includes dimensions and weights. Thirty-two pages (includes eight pages of engineering specifications, data.)—H. K. Porter Co., Inc., Forge and Fittings Div., "W-S" Fittings Works.

670 Forged Steel Fittings

All types, sizes and materials of forged steel screwed and socket welding fittings covered by ASA B16.11 and MSS SP49 are now available to all Bonney distributors and are described in bulletins.—Bonney Forge & Tool Works.

671 Forged Steel Unions

Specifications of screw end and socket welding, ⅛ to 3 in., unions for high pressure, high temperature applications given in bulletin U-2. Dimensions and weights of forged steel unions, tongue and groove and O-ring flange unions, also orifice, tab orifice, clamp ring, insulated, 2-lug nut and "4-Star" lug nut unions.—H. K. Porter Co., Inc., Forge and Fittings Div., "W-S" Fittings Works.

672 Full Flow Valves

Illustrated circular covers W.S. full flow, bronze globe and angle valves that permit practically full flow through, with minimum pressure drop and turbulence. Valves are for 150, 200 and 300 lb, have 500 Brinell stainless steel seats and discs which assure long life with little maintenance. Can be visually controlled.—The Wm. Powell Co.

673 Gate Valve

Four page circular 610 describes features and dimensions of new union bonnet bronze gate valve model 3125. Available in sizes ¼ to 2 in., it has a double wedge disc and rising stem. Rated 125 lb steam pressure and 200 lb water, oil and gas.—The Lunkenheimer Co.

674 Gate Valves

Four page supplement H to catalog VC-3 covers "Husky" gate valves with buna-N conical type gate. Will throttle. Construction features are described and illustrated and dimensions are tabulated. Ratings and uses are shown in this Supplement.—Nibco Inc.

675 Instrument Plug Valves

Bulletin E-1 on two way bar stock valves which combine features of larger "Tufline" valves with construction economy are available in ¼ through 1 in. size, 300 lb class, screwed end, 303 or 316 stainless metals. Three way cast body counterpart with bottom entry third port is available ¼ through ½ in., 300 lb class, screwed ends in 316 stainless steel metal.—Continental Mfg. Co.

676 Light Wall Stainless Fittings, Flanges

Bulletin TT 944 describes "Pipe-Mate" line of light wall tangential stainless steel fittings and flanges for moderate service process piping. Illustrates methods of joining schedules 5S and 10S fittings and pipe, including "rolled in" assemblies with unique rotating insert flanges. Gives information on dimensions, design properties.—Tube Turns, Div. of Chemetron Corp.

677 Liquid Relief, Special Service Valves

Twenty-eight page liquid relief and special service safety-relief valve catalog FE-138 describes new line of safety-relief valves for marine service, fire pump service, hydraulic pressure systems, liquefied gases, chemical corrosive service, and general industrial service. Other products briefly described.—Farris Engineering Corp.

678 Manual on Non-Corrosive Drainline

Engineering catalog gives all necessary information on "Vulcathene" polyethylene non-corrosive drainline systems which include fittings, sinks, traps, pipe, etc. Contains section on "Polyfusion" method of joining "Vulcathene" pipe and fittings. Describes recommended uses, advantages, characteristics, layout, design and illustration.—American Vulcathene Div. of The Nalge Co., Inc.

679 Motorized Valves

Four page bulletin V 100-5B on "Au-Temp-Co" motorized valves with oil immersed reversing motors for controlling flow of steam and non-corrosive liquids. Used for zone control of heating systems; control of heating, ventilating, and air conditioning systems; control of mediums to coils or sprays, industrial installations, processing, etc. Dimensions and pressures given.—Heat-Timer Corp.

680 Non-Lubricated Plug Valve

Bulletin V/12 describes "'Sleeveline" low cost, non-lubricated plug valve with "Teflon" sleeve which provides positive shut-off with no sticking or galling. One hundred percent sealing surface with no contaminable pockets are a feature. Available in sizes from ½ through 6 in., in ductile iron or 316 SS.—The Duriron Co., Inc.

681 Non-Lubricated Plug Valves

Bulletin SC-60 describes "Tufline" non-lubricated plug valves with through flow quick, visual opartion. Self-lubricating, chemically inert "Teflon" separates moving parts to avoid galling, permits tight sealing. Available in variety of metals ¼ through 8 in., 150 and 300 lb for on-off service, light or heavy media.—Continental Mfg. Co.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

682 Penetrating Oil

"Eez-It" penetrating oil in high pressure stream aerosol can contains molybdenum and is effective even on hot surfaces.—The Tankit Co., Inc.

683 Pipe Line Strainers

Bulletin 2000 describes Y type strainers for steam, air, oil, gas, water. Includes photographs, drawings, dimensions for screwed strainers ¼ to 2 in.—Frank D. Riggio Co., Inc.

684 Piping Code Changes, Fittings, Flanges

Bulletin 942 gives table of allowable working pressures for ¾ through 24 in. lightweight carbon steel piping and incorporates recent changes in ASA Code for Pressure Piping. Dimensions are given for lightweight welding fittings and exclusive 125 lb forged steel lightweight taperface welding neck flanges in sizes through 24 in.—Tube Turns, Div. of Chemetron Corp.

685 Piping for Nuclear Applications

Twenty page illustrated brochure 60A, "Critical Piping for the Nuclear Age," describes piping, fittings, flanges, piping fabrication and erection work performed for nuclear piping systems.—Midwest Piping Co., Inc.

686 Piping Practice Chart

Recommended Piping Practice Chart suitable for posting lists helpful data under five categories — basic valve types, end connections normally used, installation and maintenance tools, installation, and operation and maintenance. Illustrations of valves are included, as are engineering specialties and lubricating devices.—The Lunkenheimer Co.

687 Piping System Drawing Template

Piping system drawing template provides the various sizes of commonly used welding fitting shapes used in welded piping systems. Use of the template will speed design and drawing time by providing the shapes that would otherwise be duplicated time and again on piping drawings.—Bonney Forge & Tool Works.

688 Plug Valves

Twenty page catalog 39-3 shows more than 200 sizes and types of positive acting plug valves which have built-in means for assuring operation under all service conditions. Straightway, three and four way, and multiple port patterns for pressures up to 1500 lb.—Homestead Valve Mfg. Co.

689 Plug Valves for Air Conditioning

How ACF lubricated plug valves can save maintenance, operating and installation costs in air conditioning systems is described in bulletin AP 1059. Dimensional data and other information on these valves is also included.—W-K-M Div. of ACF Industries, Inc.

Use the handy postage-paid reply card on pages 2-59 and 2-60 to request copies you want.

690 Pressure Regulators

Bulletin 160 illustrates and describes "Precision" pressure regulators, types AA and AR, and IA and IR suitable for steam or air service with either 300 lb bronze or 250 lb semi-steel body with stainless steel unit pilot valve, main valve and seat, sizes ½ through 6 in.—O. C. Keckley Co.

691 Radiation

Condensed catalog containing two pages of information on each model of Shaw-Perkins "Panel-Vector" and "Airadiator" radiation. Descriptions, specifications, dimensions, ratings, etc. are included. Offers full literature on each model.—Shaw-Perkins Mfg. Co.

692 Refrigerant Flow Control

Expanded catalog 104 describes various refrigerant flow control devices and accessories such as packed and packless, shut-off, relief and check valves; driers and filter-driers, both sealed and cartridge types; strainers and indicators, both liquid and moisture-liquid types.—Henry Valve Co.

693 Remote Operation of Valves

For those concerned with valves and piping, bulletin sheet details Babbitt adjustable sprocket rim with chain guide, a simple device for remote operation of overhead or otherwise out-of-reach valves. Gives price list, ordering directions and cites accident reduction, waste prevention and simplification of piping layout.—Babbitt Steam Specialty Co.

694 Renewable Disc Valves

Bulletin DH-119 describes renewable disc bronze globe and angle valves with composition disc rings, and includes service recommendations.—R-P&C Valve Div., American Chain & Cable Co., Inc.

695 Resilient Seated Butterfly Valves

Resilient seated type butterfly valves with "Keelok" removable rubber liner for applications where drop-tight closure is required described in bulletin 590X. Features include less weight and space, easier installation than gate valves, corrosion resistant, no fouling, self-cleaning negligible maintenance. Sizes to 36 in.—W. S. Rockwell Co.

696 Reversing Valves

Design of reversing valves features a full seating system, few moving parts. Dense brass movement and teflon seating give extreme durability and life. Dual tube construction and full seating design protects user against efficiency loss from heat exchange and leakage. Range is 1 through 20 tons.—Chatleff Controls, Inc.

697 Rubber Pipe, Fittings, Valves

Sixteen page bulletin CE-51-52 on "Ace" rubber lined and hard rubber corrosion resistant pipe, fittings, and valves includes a selection

guide for piping systems, data on chemical resistance, descriptions, dimensions, etc. Fabricating and assembly of pipe discussed.—American Hard Rubber Co., Div. of Amerace Corp.

698 Saddle Fittings

Four page brochure describes pre-shaped saddle fittings for branch connections in both 45 and 90 deg. Comparative cost chart shows benefits in dollars and cents between forged fittings and preshaped fittings. Specification chart for easy ordering with sample order blank shown, plus supplemental equipment and "how to install" in three steps.—Allied Piping Products Co.

699 Seamless and Welded Welding Fittings

Twelve page bulletin 60-C describes new line of seamless butt welding fittings, now offered in addition to extensive line of welded type fittings. Manufacturing procedures, size ranges and types of available fittings — both stock and special — are listed and illustrated, together with a description of metallurgical and dimensional controls.—Midwest Piping Co., Inc.

700 Seamless Welding Fittings and Flanges

Eight page brochure FB 502A covers carbon, alloy and stainless steel seamless welding fittings and flanges. Contains charts of standard sizes and schedules according to ASA B36.10 and ASA B36.19. Illustrates fittings and flanges commonly produced, lists sizes and types available. —Babcock & Wilcox Co., Tubular Products Div.

701 Seatless Blow-Off Valves

Bulletin B-427 describes complete line of seatless blow-off valves for boiler pressures up to 415 lb wsp. Valves are of balanced sliding plunger design with no seat to score, wear, clog or leak. Bulletin includes tandem valve selection table.—Yarnall-Waring Co.

702 Selection of Welding Fittings

Twelve page brochure FB 78 contains data on materials selection, specifications and analyses, effects of alloying elements, mechanical properties, arc welding procedures and catalog information. This preliminary guide to the selection of welding fittings for pressure uses covers carbon through stainless steels.—Babcock & Wilcox Co., Tubular Products Div.

703 Slide Valves

Bulletin 501R tells about "Kwikleen" type slide valves for low pressure fluids, air or gases containing solids or for free-flowing granular materials that clog or jam conventional valves. Can be cleaned without removing from pipe line. Manual or automatic control.—W. S. Rockwell Co.

704 Solenoid Valves

Expoxy-Clad (completely waterproof) coils that eliminate any possibility of coil failure or burnout due to condensation, frost, oil, gasoline fluid spray, etc., are now available without extra cost in all standard solenoid valves featured in new J.E. catalog 6 just off the press.—Jackes-Evans Mfg. Co.

705 Steam and Water Service Manual

Specially prepared for plant use, this manual is for those whose job function covers operation and/or installation of steam-water service. Various control systems described and illustrated include domestic hot water, instantaneous heat exchangers, fuel oil heaters, heat exchangers for cooling, pressure reducing, jacket water cooling and two-temperature hot water systems.—The Powers Regulator Co.

706 Steel Pipe Couplings

New bulletin gives sizes, lengths, threads, weights and carton contents of Wheatland merchant, half and API line pipe couplings plus other information, with complete specifications on steel pipe, including standard, extra strong, double extra strong and structural pipe. Illustrated, and printed in two colors on durable stock.—Wheatland Steel Products Co.

707 Three, Four, Five Way Plug Valves

Bulletin SC-60 describes "Tufline" three way, non-lubricated plug valves designed with bottom entry third port for maximum sealing and flow. Available in ½ through 6 in., 150 and 300 lb class. Four and five way valves are furnished in ½ through 2 in., 150 lb. Multi-port designs available in variety of metals.—Continental Mfg. Co.

708 Union Bonnet Gate Valves

Illustrated circular describes new union bonnet bronze gate valves for 125 WSP — 200 WOG and 150 WSP — 300 WOG. Inside screw rising stem valves with interchangeable solid or split wedge discs, and non-rising stem valves are available in sizes ¼ to 3 in.—The Wm. Powell Co.

709 Valves

Condensed catalog sheets describe standard pressure globe and angle valves (1413-V); low pressure globe and angle valves (1409-V); standard and low pressure check valves (1411-V); radiator and bypass valves and manifolds (1410-V).—Ohio Brass Co.

710 Valves

Twenty-four page condensed booklet briefly covers quality valves such as gates, globes, angles, checks, Y's and others. Sizes, pressure and temperature ratings are listed. Valves available in bronze, iron, steel and alloys to control flow of water, oil, gas, air, low and high pressure steam, corrosive fluids.—The Wm. Powell Co.

711 Valves

Catalog 10 shows illustrations, condensed descriptions and specifications on bronze, forged steel and iron gate valves; bronze and iron globe and angle valves; bar stock valves; and cast

steel valves.—R-P&C Valve Div., American Chain & Cable Co., Inc.

712 Valves and Controls

Catalog contains installation, application, tabular and descriptive information for sizing and selecting thermostatic expansion valves, refrigerant distributors, solenoid valves, suction line regulators, hot gas bypass valves, float switches, high side float valves, evaporator controls and reversing valves for all refrigerants and all types of applications.—Alco Valve Co.

713 Water Diverting Valve

Technical bulletin V-101 describes "Vectrole" V-58 electric water diverting valve offering the following features: Dense brass construction. Silent, non-liming moving parts. Balanced resistance to flow in either position. Range from 0 to 10 gpm. Simple, compact, field serviceable. On-off operation for automatic summer-winter convector control.—Chatleff Controls, Inc.

714 Water Hammer and Its Control

Eight page bulletin, "Water Hammer — Cause, Effect and Control in Piping Systems," includes technical data, pressure diagrams and detailed conclusions on the handling of surge pressures which result in water hammer.—Williams Gauge Co., Inc.

715 Zone Heat Control

Four page bulletin describing and illustrating features, applications, and sizes of "Zonvalve" zone heat control for steam, hot water, and chilled water systems. Each room or zone in building is individually temperature controlled with only a single burner or circulator. Radiator, convector and zone supply line installations diagrammed.—Heat-Timer Corp.

Warm Air & Direct Fired Heating

716 Classroom Heating, Air Conditioning

Bulletin CC-605 provides school heating, cooling and ventilating information and application of "Comfort Curtain" system. Covers research and air distribution, heat gain and loss, heat source — warm air, hot water, steam, electric and heat pump — and air conditioning and controls.—Lennox Industries Inc.

717 Direct Fired Heaters

Six page bulletin 501A describes direct fired heaters for capacities 400,000 through 3,500,000 Btu, all fuels, all applications and mountings. Features described and illustrated, details of engineering emphasized and table of ratings included. Various application and mountings sketched.—Arkos Mfg. Co.

718 Direct Fired Heaters

Four page bulletin J-557 describes and illustrates model FA "Fyre-tube" packaged heating units for oil or gas and the many types available in sizes of 350,000 to 4,000,000 Btu for industrial and commercial applications. Factory assembled, wired and flame tested. FA 360 two-page insert shows standard specifications, dimensions and rating data.—Johnson Heater Corp.

719 Direct Fired Space Heaters

Four page bulletin J858 describes 15 sizes of model JA "Aire-tube" heaters from 400,000 to 5,000,000 Btu capacity fired with gas, oil or combination of both. Exclusive construction features and revolutionary air rotation heating in large areas is explained, along with ratings and dimensional data.—Johnson Heater Corp.

• *See the front cover of this Trade Literature Supplement to Heating, Piping & Air Conditioning for the index by products to these listings.*

720 Direct Fired Space Heaters

Booklet C-658 provides drawings of typical installation arrangements of "Commercial-Aire" direct fired heaters in the 300,000 to 2,000,000 Btu output range. This reference booklet provides the user a wide variety of proven design applications for commercial and industrial forced air systems.—Mammoth Industries, Inc.

721 Fiber Duct

A four page illustrative brochure on "Sonoair-duct" fiber duct. The duct is designed particularly for slab floor perimeter heating or combination heating and cooling systems. Information regarding air friction loss, thermo-conductivity and general installation instructions are included in the brochure.—Sonoco Products Co.

722 Gas Fired Heaters, Duct Furnaces

General catalog SA-5900 describes the complete line of Reznor gas fired unit heaters, duct furnaces, heavy duty heaters, blower fans and the new Reznor motorized flue exhauster. Dimensions, performance data and application suggestions are included.—Reznor Mfg. Co.

723 Heating

Equipment for residential and commercial heating, forced air and boiler operation, gas or oil fired, steam or hot water is described in a comprehensive bulletin.—Welbilt Air Conditioning & Heating Corp.

724 Hopper and Bin Feed Stokers

Six page bulletin with complete illustrations and descriptions of industrial, commercial and domestic stokers in 56 models with capacities of

from 150 lb per hr through 750 lb per hr. Includes drawings and specification tables.—The Will-Burt Co.

725 Horizontal Suspended Furnaces

Bulletin 59S-1 offers dimensional and engineering data for "Compacto" horizontal suspended furnaces available in oil or gas with outputs from 185,000 to 450,000 Btu. Six different designs are presented, including four which utilize oversize blowers, bypasses or a combination of both, for combination heating-cooling systems, or air make-up applications.—Mammoth Industries, Inc.

726 Indirect Fired Space Heaters

Form 550-1-60 describes "Champion" TD series indirect fired space heaters for use with gas, oil or combination fuels with outputs from 400,000 to 4,000,000 Btu, and gives complete selection of sizes and styles. Features packaged burners or National total designed heaters. Factory wired and fired. UL and AGA approved. Stainless steel heat exchanger.—National Heater Co., Inc.

727 Industrial Burners for Oil, Gas

New "Cyclo-Jet" power industrial burner designed for fuel efficiency is made in a broad selection of sizes for industrial boilers and furnaces. Offered for three fuel types — straight natural gas, No. 2 fuel oil and, dual fuel gas-oil. —Roberts-Gordon Appliance Corp.

728 Industrial Direct Fired Heater Manual

New application manual for industrial direct fired heaters covers survey procedures, transmission factors, conduction, infiltration, exhaust calculations, estimating factors, open loading-door heating, fuel pipe designing, process heating, calculations, make-up air systems, high temperature psychrometric charts, conversion tables, reference data.—Lennox Industries Inc.

729 Industrial Direct Fired Heaters

Two bulletins describe models AT and OG series of industrial space heaters. Gas, oil or combination fuel burners with pushbutton changeover. Outputs from 400,000 to 2,000,000 Btuh. Rugged constructions with completely enclosed burner, adaptable for space heating, ventilation, make-up air, process heating, air conditioning.—Lennox Industries Inc.

730 Industrial Winter Air Conditioners

Industrial forced warm air conditioners are available in oil and gas fired models ranging from 300,000 through 705,000 Btu inputs. High input units are particularly adaptable for applications requiring above average heating load and high cfm.—Mueller Climatrol Div. of Worthington Corp.

731 Pressure Atomizing Oil Burner

Four page bulletin describes type C-45 pressure atomizing oil burner listed by Underwriters Laboratories for Nos. 4 and 5 fuel oils. Is a replacement for light oil burners in the range of 5 to 33 gph. Can use light oil without electrical heater in service, changing to Nos. 4 and 5 oil in future.—National Airoil Burner Co., Inc.

732 Reference Chart for Equipment Selection

1961 reference chart lists complete line of over 195 units — 28 new models — of refrigeration equipment for air conditioning for determining right unit for particular job. In four parts — unitary air conditioners, heat pumps, furnaces, evaporators and air handlers. Includes 166 air conditioning products, 32 gas and oil fired furnaces.—Typhoon Air Conditioning Div.

733 Registers, Grilles, Diffusers

Complete line of high quality products for any commercial or residential heating and/or cooling operation. Specializing in non-standard sizes and designs. Heavy gauge steel or aluminum in many eye appealing designs; air flow in any directional pattern.—A & A Register Co.

734 Space Heaters

Bulletin 580-12C describes features of "Counterflo" space heaters ranging in output from 400,000 to 2,000,000 Btu per hr for a wide range of industrial applications. Drawings, specifications and other engineering data included.—Dravo Corp.

735 Space Heaters

Form 811-R covers "Therma-flow" quality, economy priced line of space heaters with stainless steel combustion chamber and aluminized steel heat exchanger. Universal application, horizontal, upflow, downflow. Sizes from 175,000 to 1,000,000 Btu. Gas oil or combination fuels.—National Heater Co., Inc.

736 Stainless Steel Heat Exchangers

Technical data bulletins cover stainless steel heat exchangers. Included in the line is a wide variety of models, 45,000 to 480,000 Btu, vertical and horizontal, floor and suspended type furnaces and heaters.—Hayes Furnace Mfg. & Supply Co.

737 Year 'Round Air Conditioners

Four page booklet describes in detail effectiveness of two-pass air system for cooling and long life made possible with specially protected heat exchanger.—Janitrol Heating & Air Conditioning, A Div. of Midland-Ross Corp.

WHEN USING REPLY CARD

When you use the reply card on pages 2-59 and 2-60 to request the literature you want, please circle clearly the corresponding item number on the card for each catalog or bulletin to be sent to you.

The item number is the big number at the left of the title for each item. For example, in the item immediately above, the number to circle on the reply card would be 737.

Water Treatment & Corrosion Control

738 Air Conditioning Cooling Water Treatment

Bulletin 117 describes advantages of chromate type liquid materials for prevention of corrosion and scale deposition in air conditioning cooling water systems. Use of a specially designed "Micro" chemical feeder which requires a minimum of attention is recommended to eliminate the necessity for manual daily chemical feeding.—The Bird-Archer Co.

739 Amines for Corrosion Control

Bulletin CP-100 describes advantages of amines in corrosion protection of steam and condensate return systems, with graphs and case histories. Bird-Archer's eight point water treatment service, designed to keep operating costs at a minimum and boost efficiency, is described.—The Bird-Archer Co.

740 Control of Condensate Corrosion

Bulletin describes "Hagafilm", a film type amine designed to control condensate corrosion, clean out iron oxide deposits, increase heat transfer, reduce maintenance and replacements and protect steam system during standby. Built to fight corrosive producing effects of carbon dioxide and oxygen in condensate systems. Liquid or solid form.—Hagan Chemicals & Controls, Inc.

741 Corrosion Control for Cooling Water

Bulletin CSP-935 describes "Hagatreat", a complete corrosion inhibiting compound designed for treatment of recirculating cooling water systems in industrial plants and for the prevention of scale and sludge formation thereby making possible a greater concentration of make up water. Dry powder soluble in water.—Hagan Chemicals & Controls, Inc.

742 Corrosion Inhibitor

Bulletin HSP-922 describes corrosion inhibitor CS, a non-chromate, non-staining product for air conditioning, high temperature hot water and process cooling water systems which is compatible with alcohol and glycol base antifreeze solutions. Controls corrosion on exposed iron, steel, copper, copper alloys, aluminum, brass and solder surfaces.—Hagan Chemicals & Controls, Inc.

743 Pipe Corrosion Control Data

Useful data file on pipe corrosion problems describes "Chasekote", pressure-sensitive, polyethylene tape that provides a tight uniform bond; "Chasewrap" sheet material used as overwrap to provide shielding protection during backfill and soil stress periods; "Chaseprime" and "Chasefil" primer and filler putty to give complete package of corrosion control items.—Chase & Sons, Inc.

744 Protecting Metal Surfaces

"Pioneer" metal protectors, fluid type mastics designed for the protection of metal surfaces, provide excellent protection against acid, alkali and salt corrosion, are waterproof, fungus proof and provide excellent abrasion resistance. Can be applied over bare, slightly oily, primed or painted surfaces. Surface need not be galvanized.—Witco Chemical Co., Inc.

745 Water Sampler for Boiler Blowdowns

Leaflet describes boiler water sampler suitable for boiler blowdowns to 900 psi and 750 F. Body is 4½ in. OD by 16 in. long. Coil contains 30 ft of copper tube. This sampler is available with stainless steel cooling coil when required.—Rempe Co.

Welding Equipment

746 A-C and A-C/D-C Arc Welders

Bulletin describes arc welders for all processes requiring a-c or a-c/d-c welding current.—Miller Electric Mfg. Co.

747 D-C Arc Welders

Bulletin describes d-c arc welders for all processes requiring d-c welding current.—Miller Electric Mfg. Co.

748 Engine Driven Welder/Power Plants

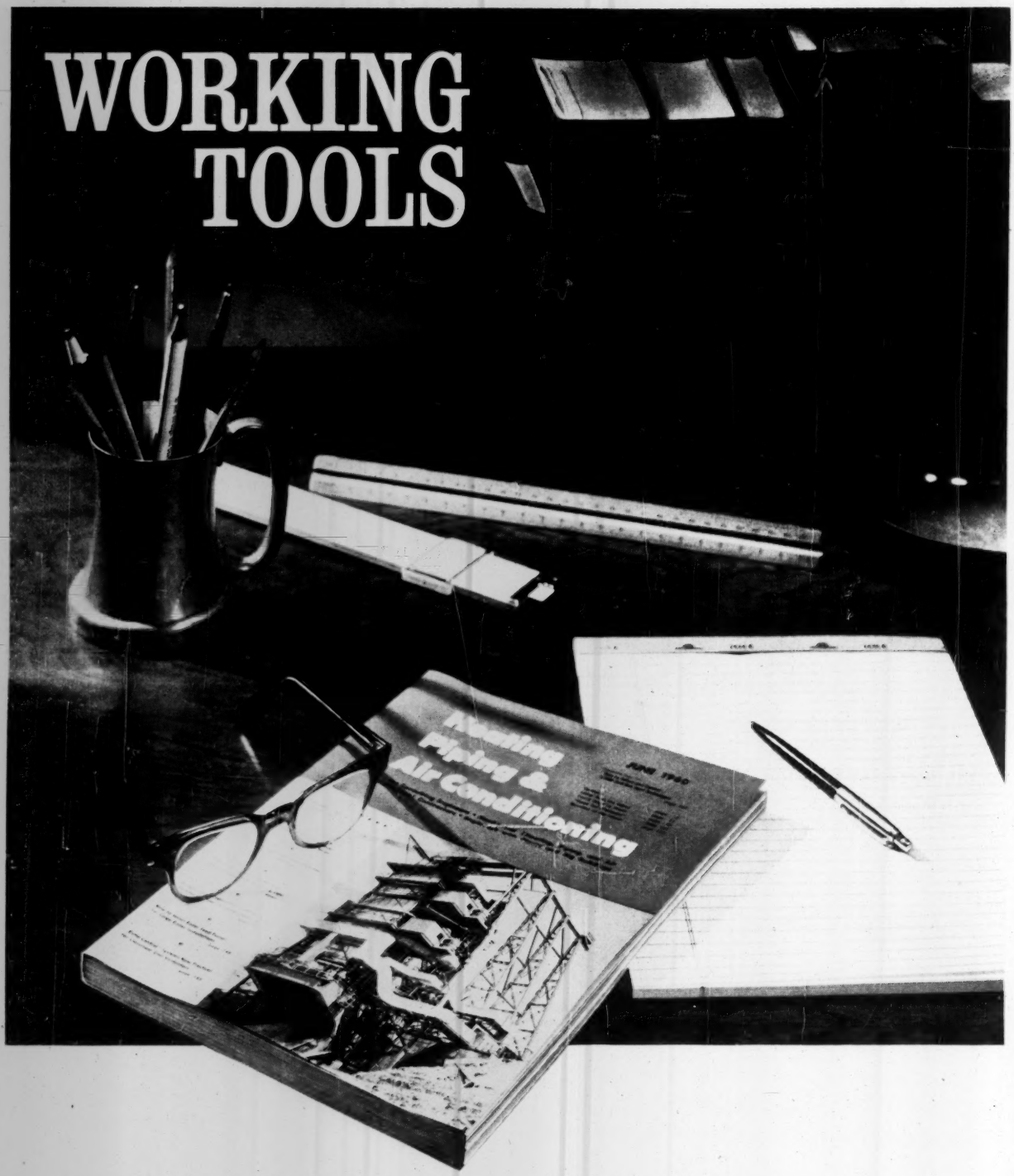
These units furnish a-c and/or d-c and/or a-c/d-c welding current for all applications. Also furnish a-c power for lights, etc., and d-c power for running power tools, etc.—Miller Electric Mfg. Co.

749 Stud Welder for Insulation Pins

Bulletin describes inexpensive resistance type "PinSpotter" stud welder designed specifically to weld pins on ducts for mechanical fastening of insulation. The 110 volt model is self-contained and is suspended over the work area. The 220 volt unit has a "gun" connected to unit by 5 ft cable assembly.—Duro Dyne Corp.

To simplify your requests for copies of the trade literature that is reviewed here, use the convenient postage-paid card on pages 2-59 and 2-60. Heating, Piping & Air Conditioning will advise the manufacturers.

WORKING TOOLS



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